THE EFFECT OF DIRECTED SUMMARY WRITING INSTRUCTION ON EIGHTH GRADE COMPOSITION STUDENTS

MASTER'S PROJECT

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CHAPTER ONE

Research Methodology Introduction

I. Problem

National attention has focused recently on two educational concerns of special interest to junior high Language Arts teachers. One of these is the need for greater reading competency (N.A.E.P., 1985), and the other is the need for improved critical thinking skills (N.A.E.P., 1985). Finding a way to unify the fragments of the Language Arts program into a unit of work that demanded competent reading, critical thinking, and effective composition was a worthy goal for the teacher at this level. Helping to develop these skills at the 8th grade level would benefit the students by preparing them to confront the challenge of high school.

Summary writing combines those reading, thinking, and writing skills that need strengthening. This is a skill that is immediately useful to the 8th grade student in his subject area classes, as well as being even more valuable for future research tasks and comprehension of the difficult subject matter at the high school level. It is a skill in which many 8th graders are deficient.

A careful search of available instructional materials for teaching summary construction yielded either published exercises offering multiple choice selections, or written material followed by a single line for a written summary. This did little to teach the student how summarizing was actually done. Also breaking the material into such small pieces tore the fabric of continuity

demanded in the process of reading, thinking, and composing in order to produce a valid product. A comprehensive, step-by-step, approach to summary writing simply was not found.

Reviewing research on summary writing revealed interesting evidence. First of all, it is a skill that develops slowly, often not being present in the student as he goes on to the high school level. (Brown, Day, & Jones, 1983). It can, however, be taught before that (Hare & Borchardt, 1984), but it must be done carefully and explicitly (Hare & Borchardt, 1984). The research offered recommendations on how summary writing might be taught, and, consequently, a unit was developed based on these research findings. This unit will be referred to, henceforth, as Directed Summary Instruction. The research question to be answered was: how effectively would Directed Summary Instruction teach the skill of summary writing to 8th grade grammar/composition students.

II. Hypotheses

Since three classes were available for study, and there were several possible alternatives for instruction, three hypotheses were formulated.

* Students taught summary writing by Directed Summary Instruction will construct summaries that are statistically significantly different from those summaries constructed by students receiving standard workbook instruction based on the teacher constructed rating scale used to assess pre and post tests.

* Students taught summary writing by Directed Summary Instruction who produce an individually constructed product will write statistically significantly different summaries than students who produce a cooperatively constructed summary based on the teacher constructed rating scale used to assess pre and post tests.
* Students taught summary writing by Directed Summary Instruction who produce an individually constructed product will write statistically significantly different summaries than students who produce a cooperatively constructed summary, or students who receive standard workbook instruction, based on the teacher constructed rating scale used to assess pre and post tests.

III. Definitions

A. Directed Summary Instruction:

Directed Summary Instruction is the name applied to the series of lessons developed for teaching summary writing to the experimental classes. Based on previously researched, successful summary instruction, these lessons purposely included very specific techniques such as; teacher modeling of each step, and advising the students to cross out and insert on their own copies of the summaries.

B. Metacognitive Modeling:

Metacognitive modeling is the process of talking through thought patterns. In other words, thoughts are made public by speaking them aloud. In this study the teacher, metacognitively, modeled each step in the process of summarization. The teacher told the students exactly what questions she asked herself as she thought through the summary process; what answers she decided on; and what the progression of steps to completion would be.

C. Rating Scale:

Evaluation of the pretest and posttest in this study was conducted using a Rating Scale developed specifically for this study. One Rating Scale was developed for the individually administered pretest and posttest and another for the group administered pretest and posttest. The scale allocated 100 points for a perfect summary. Varying point assignments were made to components such as main idea statement, detail enumeration, and the use of complete sentences.

IV. Methods and Procedures

A. Sample

Seventy-eight eighth grade students, forty boys and thirty-eight girls, from three Grammar/Composition classes participated in this study. Scheduled by computer for these classes, the students were heterogenously grouped racially, intellectually, and academically.

Each of the three classes received a different teaching procedure. Class One received Directed Summary Instruction. The product created by the students in this class was individually produced. Class Two also received Directed Summary Instruction. However, this class used cooperative learning techniques to complete their assignments. The product generated in this class was the product of four students working cooperatively. Class Three functioned as the control group for this project. The materials used were presented in workbook format and selected from published sources.

B. Design

This study was a pretest-posttest design. The students used were selected by random methods and assigned to the classes for treatment or nontreatment randomly. The mean pretest score for both the experimental and the control classes was found. Except for the experimental treatment, all the other variables remained the same. A mean posttest score for both the experimental and control classes was also found. The design was extended so that the first experimental class could be compared to the second experimental class, and both class one and class two could be compared to class three.

1. Pretest Instruments

   a. The article, "Hibernation: Possibilities for Space Travel," was used as the group-generated pretest. The members of all three classes were assigned to groups of four and instructed to compose a summary on the article. No instruction on how to summarize

was given. Each group was told to work together to compose the summary and appoint one member to write down that summary. All group members then signed the completed work.

b. The article, "The Anatomy of a Fad," was used as the individual pretest for summary writing. Copies of the article were distributed to all students enrolled in each of the three classes. No instruction on how to write a summary was given. Each student was asked to compose a summary of the article on a separate piece of paper and submit it.

2. Instruction

a. Instruction in all three classes was conducted for nine successive school days during the regularly scheduled grammar/composition class period. These periods were fifty minutes in length.

b. The control group was given a workbook-like packet of material to complete individually. These lessons were taken from three textbooks used in the eighth grade. The lessons emphasized topic, main idea, and summarizing. No instruction, other than that provided directly by the materials, was given. No metacognitive modeling was done. Sections of the packet were completed each day and the "workbook" was collected and redistributed on the following day. The "workbook" was graded twice during the instruction period. The grade was based on accurate

completion of the exercises. Each student worked individually; however, the class read the lesson material aloud. The exercise items were done individually and then checked orally. The "workbook" portion of this unit required seven days of class time to complete. Since two more days of instruction were required to equal the nine-day lesson plan used in Directed Summary Instruction, two other lessons were used. The first of these was the lesson on summary writing included in the grammar textbook. This was assigned as presented in the text. The last lesson used was taken from the eighth grade science text. The students were asked to summarize a chapter that had been copied from this book. To aid in making this summary, each student was given a copy of seven steps for making summaries.

c. Directed Summary Instruction was used for class one and included three lessons on paraphrasing, two lessons on one-sentence summarizing, two modeled summaries, and two on-your-own summaries. All lessons were turned in upon completion. One of the one-sentence summary exercises was graded; and one of the on-your-own summaries was graded. Incorporated into these lessons were some very specific techniques based upon research. These were: using expository material slightly below grade

level; using material of high interest to junior high students; having individual copies of material to be summarized for each student; modeling procedures for crossing out, inserting, and circling of material being summarized; teaching directly rules for summary writing; teacher modeling of each step in the process; practicing each step more than once with different materials; and developing the group's own set of rules for successful summary writing at unit's end.

d. The cooperative learning group also used Directed Summary Instruction. Whole class instruction was given each day prior to breaking into assigned groups. The product was then created by the group working cooperatively. These cooperative groups of four each were assigned using the rank order method. The ranking was based on the numerical average of the students at the end of the first six weeks of work. The groups were also arranged for boy-girl balance as well as academic balance. Each member of each group was assigned a specific job. One member was the Scribe, who did the written portion of each assignment; one was the Checker, who ascertained agreement within the group; one was the Encourager, who offered praise and encouragement to reluctant members; and one was the Gofer, who did any moving about or questioning of the teacher that was

necessary. When each assignment was completed, it was signed by the members of the group and submitted. Two lessons were graded, one of the sentence summaries and one of the on-your-own summaries. A special list of rules for cooperative learning were given to each student to reinforce these procedures.

3. Posttest Instruments

   a. At the end of the work unit, the article, "Hibernation: Possibilities for Space Travel," was once again distributed to the students for summarizing. The groups were composed of the same members that had done the pretest group summary. In all three classes the summary of the article was done in groups of four and submitted for evaluation.

   b. For the posttest in individual summary writing the article, "The Anatomy of a Fad," was used again. Each individual enrolled in each class wrote a summary of this article and submitted it. The only change that was made in instruction was that the article could be marked on if the student so desired. This idea was not presented during the pretest.

   c. Prior to evaluating the student summaries, several summaries had been sought from professional staff members for comparative purposes. These summaries

showed sufficient similarity to validate a model summary. In addition to this, a Rating Scale was developed for use with both of the summary articles. Applying this Rating Scale to each of the pretests and posttests, provided a numerical score for each of the papers submitted.

V. Limitations

A. Class attendance. Because of the number of days involved in the work project, and the number of students involved, it was impossible to make sure that each student completed each part of the work. Absences occurred frequently, and in most cases the work was not made up by the student. In the cases where either pretest or posttest was not completed, the student was not included in the final evaluation. However, some students did miss one or more lessons. Administration of the group pretest and posttest was also affected by this problem of absenteeism. The group members who took the cooperative pretest were not, in each case, exactly the same members who completed the posttest. This was due to absences. This condition affected all three classes equally.

B. Measurement instruments. A Rating Scale was developed to minimize subjectivity in the evaluation of student summary writing.

Chapter Two

Review of the Literature

I. Introduction

The purpose of this chapter is to review the literature on summary writing. The research relevant to this study was found, and it has been arranged under specific headings. These headings include: using rules to teach summary writing, explicit instruction, the use of expository text, availability of text, producing a written summary, paraphrasing, and prior knowledge. One of the three classes in this study used the cooperative learning approach in the production of their written summaries. For this reason cooperative learning literature has been reviewed in a very limited way. Finally, because a Rating Scale was specifically designed for this project, a very brief review of appropriate literature on evaluation is also included.

II. Review

Using rules to teach summary writing

Research indicates that rules for summary writing evolved from the summarization model developed by van Dijk and Kintsch, (1977); (Kintsch and van Dijk, 1978). They stated that the information to be included in a summary was determined by macrorules. These macrorules were the processes of deletion, generalization, integration, and construction.

Building upon this research Brown and Day (1983) extended these macrorules by identifying six basic rules for summarization. The deletion rule was expanded to the deletion of

trivial and the deletion of redundant. From Kintsch and van Dijk's generalization rule they identified substituting a superordinate term or event for a list of items or actions as an appropriate rule. Similiarly, they suggested substituting a superordinate action for a list of components of that action. They referred to this as condensation, and it roughly compared to Kintsch and van Dijk's (1978) integration rule. Selection of a topic sentence was the fifth rule stated by Brown and Day. Finally, if no topic sentence existed, Brown and Day advised inventing one as their sixth rule. These rules were roughly equivalent to Kintsch and van Dijk's construction rule. While Kintsch and van Dijk presented these rules as the basis for comprehending text, Brown and Day suggested them as specific rules for summary writing.

Brown and Day conducted three research studies using these rules as a basis for writing summaries. In their first experiment they were interested in evaluating the ability to apply these rules based upon the age of the subject. Their subjects ranged in age from fifth grade to college students. Expository texts were carefully constructed for use in this study, and the first five rules were applied to the summary task. They found that the fifth and seventh graders were able to apply the two deletion rules effectively. However, the younger children were much less successful in condensation, selection, and invention.

A continuation of their own study (Brown & Day, 1983) was conducted by Brown, Day, and Jones (1983) to examine the

development of the ability to summarize. This time they used folk tales as the research material, and the subjects ranged in age from 5th grade to first year college students. They found that successful strategies for summary writing, particularly if the text was lengthy, were late in developing and were refined throughout the school years. In addition they noted that the junior high and high school years were ideal for acquiring these skills since the necessary mental abilities were developing at the same time as the increased need for these very skills.

Building upon the work of Brown and Day (1983) Hare and Borchardt (1984) conducted two versions of a summarization intervention program. In it they presented inductive and deductive instruction to high school juniors. Direct instruction of summarization skills was incorporated into both versions. The rules used by Brown and Day were expanded to include two additional ones: a paragraph combining rule that is often used by mature summarizers, and a "polishing" strategy that finishes off a summary in a smooth manner. The same expository materials used by Brown and Day were used in this study. The study found that careful instruction in the use of summarization skills had a positive effect on both the utilization of these skills and the quality of the summarization products. In addition they found that students often do not know enough about expository text to identify what is important. Because they were not sensitive to adult conceptions of importance, the teaching of rules did not enhance identification of implicit main ideas in these subjects. However, they found that teaching high school students to apply

macrorules to summarize school-like texts was effective.

Anderson and Hidi (1986) verified Hare and Borchardt's finding that children have serious problems selecting important information from texts. Hidi (1985) in her work with fourth graders found that their judgment of what was important seemed to be guided more by personal interest than structural importance. This investigator believed that children begin to show adult sensitivity to importance at about grade 7. Anderson and Hidi further believed that it is unrealistic to expect children to be able to acquire the skill of creating a topic sentence before adolescence. It would seem, therefore, that grade 8 is an ideal time to teach rules for summarization. These investigators found that careful instruction in summarization skills can be very beneficial.

Citing recent studies suggesting that middle-grade students could profit from direct instruction in summarization (Cunningham, 1982; Doctorow, Marks, & Wittrock, 1978; McNeil & Donant, 1982), Bean and Steenwyk (1984) conducted such a study. Three forms of summarization instruction were given to a group of 6th graders. One of the treatment groups received direct instruction in a rule-governed approach to summarization. The rule-governed approach that was used built on Kintsch and van Dijk's (1978) macrorules as they were implemented in McNeil and Donant's (1982) study with fifth graders. These six rules were: delete unnecessary material; delete redundant material; compose a word to replace a list of items; compose a word to replace the parts of an action; select a topic sentence; invent a topic

sentence if one is not present. The sixth grade subjects in Bean and Steenwyk's study applied these rules to expository materials. The results of this study showed that a rule-governed approach to writing summaries was effective and significantly better than a trial-and-error practice approach. These investigators emphasized that they believed a direct instruction model of learning was also quite important to their successful summary instruction.

Explicit instruction

In their study of summarization instruction, Bean and Steenwyk (1984) advocated explicit instruction as a vital element to successful learning with their sixth graders. In particular they mentioned teacher modeling, group application, feedback, and independent use as important elements. They mentioned, in addition, the study of Cunningham (1982) in which fourth graders were taught the GIST approach to summary training, and the study of McNeil and Donant (1982). In both cases explicit instruction was found to be effective. Many other investigators, likewise, recommend the use of explicit instruction.

Rinehart, Stahl, and Erickson (1986) used sixth graders to conduct a study on the effects of summarization training on reading and studying. The instruction was carried out by classroom teachers and expository materials were used. Although the goal was to find ways to improve comprehension and study skills, the findings of Rinehart et al. (1986) also suggested ways to improve the summarization instruction for children of middle school age. Four rules for summary writing were taught to

these subjects directly. In addition, the training involved explicit explanation, teacher modeling, practice and feedback, breaking down complexity, and a scripted lesson. The results of the study of Rinehart et al. (1986) showed that this instructional program improved the subjects' ability to summarize paragraphs, particularly those with a stated main idea. These authors recommended that more direct instruction was needed to help children derive main ideas from text.

Another researcher who recommended explicit teaching of rules for summarizing was Karl Taylor (1984). In his experience with teaching summarization to students from fourth grade to college freshman, he found that both direct instruction in rules and explicit teaching of those rules was very effective.

Hayes (1989) developed a classroom procedure called GRASP which is a teacher-led summary composition. This procedure features a step-by-step demonstration by the teacher of four steps to successful summary writing. Teacher modeling is a powerful element in this plan as is group interaction and feedback.

Another procedure which advocates the use of explicit instruction is that of Gambrell, Kapinus, and Wilson (1987). Their technique is designed to use mental imagery and summarization to help the student achieve independence in comprehension. However, in terms of instruction in summarization, they strongly advocate teacher modeling, guided practice, and independent practice.

Taylor and Beach (1984) investigated the effect of text

structure instruction on middle-grade students' comprehension and production of expository text. Although the main thrust of their study involved comprehension and student writing, they found that explicit instruction was very effective in improving the reading comprehension and expository writing of their subjects.

The use of expository text

Many researchers found that expository material was more difficult for students to summarize than narrative. There are several reasons for this. Early literary experiences in school tend to be more often with narrative text than expository text (Stein and Glenn, 1979). Because of this familiarity, students find it easier to judge the importance of ideas and condense them when dealing with narrative text (Hidi and Anderson, 1986).

Expository text requires different reading skills than narrative. Because it is usually more condensed, expository text must be read more carefully and critically. Based upon his experiences in teaching students from fifth grade to college freshmen to summarize, Karl Taylor (1984) suggested several reasons for the difficulty with expository text. One reason is that main points are sprinkled throughout an expository article and are not found exclusively at the end, so summarizing becomes an ongoing process. Unsuccessful summarizers, he found, were distracted by extraneous detail and read with less precision and intensity than those who were successful. Hidi and Anderson (1988) also found that children had difficulty summarizing expository text because they were unsure about the relative importance of the material. Hidi and Baird (1985) found that when

expositions in school materials have narrative text segments inserted, it is these story segments that are best recalled.

These strategic problems encountered in dealing with text were the very factors that Winograd (1984) studied in his research project. Comparing eighth graders with adult readers, he examined their difficulties in summarizing text. Sensitivity to importance was a problem for his eighth grade readers; however, this was linked not so much to age as it was to reading fluency. Additionally, summarizing text involved two strategies other than those required for fluency, and these were the operations of condensing and transforming a passage into gist. His conclusion was that in order to improve a student's ability to summarize, both reading skills and summarizing skills must be addressed.

Because of the identified difficulty in dealing with expository materials, Pincus, Geller, and Stover (1986) suggested a technique for using story schema as a transition from narrative text to expository test. They asked their middle school students to transform a magazine article into a chronologically ordered pattern similar to a story. In so doing they emphasized the difference between the structure of narrative and expository text. They felt that the student needed to understand this difference in order to be more successful.

Teaching text structure was found to be a valuable way to increase the ability of the student to deal with expository text. Taylor (1984) recommended teaching text structure as an aid to better summary writing as did Muth (1987). Hare and Borchardt

(1984) suggested that the process of summarizing might enable readers to better understand text structure, and in turn, might also help readers to more adeptly extract important ideas. Taylor and Beach (1984) conducted a study to determine if explicit instruction of expository text structure would result in improved reading and writing. In order to be a successful summarizer, good reading is essential. In order to share that summary, good writing skills are also necessary. In their study seventh graders were assigned to an experimental group that received instruction and practice in a hierarchical summary procedure. This treatment resulted in enhanced recall by the students of unfamiliar material and had, as well, a positive effect on the quality of the students' writing.

Because of the difficulty encountered by children in dealing with expository text, and the greater academic advantage for the student who is successful with this type of reading, nearly all of the research reviewed used expository text as the experimental material.

Availability of text while summarizing

Anderson and Hidi (1986) recommend the availability of the text to the student while creating the summmary. To ask the student to remember material in addition to summarizing it was thought to be an unnecessary burden at least until some expertise was acquired. Not only was having the text present an aid to summarizing, but it enabled the student to reassess comprehension as the summary progressed. Furthering this work, Head, Readence, Arceneaux, and Willis (1987) conducted a study in which sixth

graders summarized science material while having the text either present or not present during summary writing. The text present condition resulted in better summarizing performance.

Further support for the presence of the text during summarization is found in Hayes' (1989) summary writing program in which the teacher demonstrates and models cross-out and insertion techniques that the student can only do for himself if the text is present. Crossing out is done for redundancy and triviality while insertion is used for generalizing and condensing. The final summary is built on the revised text material.

Producing a written summary

Hidi and Anderson (1986) studied the task demands and cognitive operations involved in producing written summaries. They found that writing a summary for another reader (reader based) was a significantly more difficult task than writing one for oneself (writer based). They concluded that summaries written for an audience were both qualitively and quantitatively different and more complex than summaries people write for themselves. These researchers advocate teaching summary writing for oneself first, then following up with instruction as to how to produce a summary for another reader. This product would be more sophisticated and mechanically more accurate. Hare and Borchardt (1984) were suggesting a very similar process when they added their "polishing" rule to summary instruction.

Other authors recommended writing as an additional aid to successful summarizing. Carr and Ogle (1987) found that the

comprehension and the logical thought required to write a good summary aided the student in those very processes and made that student more successful in the summarization as well. Bromley and McKeveny (1986) also found writing to be a helpful strategy in summarizing as well as enhancing learning in the content area. Their strategy proposed precis writing as a method for integrating reading and writing while improving student performance in these processes. Citing the studies of Doctorow, Wittrock, and Marks (1978) and Taylor and Berkowitz (1985), they stated that the writing of a summary enhanced recall and comprehension of content material. With a combination of selecting main ideas, paraphrasing, and composing a summary, Bromley and McKeveny recommended precis writing as an effective aid to reading comprehension, analyzing, and composing.

Paraphrasing

Paraphrasing, or restating, was recommended by Bromley and McKeveny as a part of their precis writing strategy. Other authors, such as Shugarman and Hurst (1986), suggested this as a very useful strategy as well. These authors maintain that the rereading and rewording required in paraphrasing focuses the readers' attention on what they do and do not understand. Once focused on unknown words and confusing concepts, the student can discover meaning with the help of peers or the teacher. The very act of restating requires understanding.

Asking students to first paraphrase and then compose a summary using their own words was found by Wittrock and Alesandrini (1990) to be a very successful strategy. In their

study with young college students, they found that the generation of summaries stimulated both the learners' analytic and holistic abilities. By requiring their students to use their own wording for the summary, they found that comprehension was increased. Contrary to the recommendation used in past research studies that words in the text be selected and modified, they explicitly forbade forming a summary in this way. Instead the student was asked to compose original sentences to relate the text material in some way to his own experience and knowledge. Because such a summary required the learner to relate the new material to past experience and knowledge, it solidified that material into memory more effectively. Therefore, both original composition and relating to past experience were valuable to learning in this study. The result was a better, more meaningful summary.

Prior knowledge

Just as Wittrock and Alexandrini (1990) found activation of prior knowledge to be a valuable tool in the development of successful summaries, so did many other researchers. Carr and Ogle (1987) included a prior knowledge component in their K-W-L Plus strategy as an aid to comprehension and later to summarizing. Head, Readence, Arceneaux, and Willis (1989) included a prior knowledge instrument in their study for its predictive effect on summarization.

Alvermann, Smith, and Readence (1985) studied in depth the effect of activation of prior knowledge on the comprehension of compatible and incompatible text. In their study with sixth graders, they found that prior knowledge could interfere with

comprehension when previous knowledge overrode the textual information. To avoid this problem they recommended teacher modeling of comprehension activities. With the use of compatible text, the problem of interference with existing misconceptions did not exist. Therefore, in the early phases, it is advisable to use compatible text. Activating prior knowledge about performing the activity of summarizing is appropriate because there is no confusing factual background information at issue.

Cooperative learning

Many researchers recommended a cooperative learning component when teaching summary writing. Shugarman and Hurst (1986) recommended using a variety of student groupings to enhance learning through peer discussion. Taylor (1984) recommended the comparison of the work of several students as an aid to learning. He also recommended the cooperative learning experience of class discussion. Carr and Ogle's K-W-L Plus strategy (1987) involved peer interaction and group discussion when formulating the columns of information prior to summarizing. Jeremiah (1988) recommended a strategy for summarizing television programs that utilized a great deal of class discussion. He advised peer comparisons of summaries on the same television show. Based upon 122 studies, including 20 of his own, Kagan (1989) argued that cooperative learning experiences tended to promote higher achievement than did competitive and individualistic learning experiences. The work of these researchers has indicated that cooperative learning is a valuable tool.

Evaluation

Evaluation of student summaries is a complex and difficult procedure. Atwell (1987) discussed evaluation of composition at length. Her method combined a checklist with indepth interviews conducted individually. Rather than a checklist, Vacca and Vacca (1989) listed primary traits as a method for evaluating and grading expository writing as it related to subject-matter text. They also recommended concentrating on organization and content rather than mechanical elements. Their rubric listed traits in progression from lowest quality to highest quality.

Rubrics were also the recommended method of McCraig (1984) for evaluation. Based upon ten years of research in the Grosse Point Public Schools, he produced a handbook which contains rubrics for all grade levels from two to ten with student samples at each level of competency. This handbook provided a seven-level model of competency for seventh and eighth grade student writing. The levels were differentiated by content, expression, mechanical errors, sentence and paragraph formation, organization, focus, vocabulary, richness of expression, and vitality. In addition to the appropriate criteria at each of the seven levels, there were student samples representing each level and a discussion of that sample. The samples in the handbook were wide enough to cover all extremes of student writing that could be encountered.

Developing Writing Competence, (1989) a handbook published by the Ohio State Board of Education discussed evaluation in depth. Emphasizing qualitative aspects of writing, this source

also considered ideas, organization, clarity, unity, coherence, and appropriate vocabulary choices more important than mechanical elements. This source included, in addition, may samples of grading scales that could be used or adapted for specific purposes.

III. Summary

The research on how to teach summary writing offered considerable information regarding what had been successful and less successful. The use of specific rules for formulating and writing summaries was indicated by the studies of Brown and Day (1983), Hare and Borchardt (1984), Anderson and Hidi (1986), and Bean and Steenwyk (1984). Explicit teaching, particularly teacher modeling, practice, and feedback, was supported by the work of Bean and Steenwyk (1984), Rinehart, Stahl, and Ericson (1986), Taylor (1984), and Taylor and Beach (1984).

Because expository is more difficult than narrative text to summarize, most researchers used expository text. While some studies investigated why expository text was more difficult (Taylor, 1984, Hidi and Anderson, 1988, Winograd, 1984), others recommended strategies for dealing with this problem (Pincus, Geller, and Stover, 1986, Hare and Borchardt, 1984, Taylor and Beach, 1984).

Making the text available to the student while writing a summary was found to be helpful (Anderson and Hidi, 1986, Head, et al., 1987), and Hayes (1989) recommended having the students

write on the actual material being summarized.

Producing a written summary was found to be a useful extension of the summary process by several reseachers (Hidi and Anderson, 1986, Hare and Borchardt, 1984,). Bromley and MeKeveny (1986) found that the actual writing down of this summary aided the reading comprehension of the student as well.

While Bromley and McKeveny (1986) and Shugarman and Hurst (1986) recommended paraphrasing as a useful strategy, Wittrock and Alexandrini (1990) found that requiring the students to use their own wording even improved reading comprehension.

The activation of prior knowledge was found to be useful in the writing of summaries by Wittrock and Alesandrini (1990) and Head, Readence, Arceneaux, and Willis (1986).

Drawing on this background, Directed Summary Instruction was developed as a method to teach eighth grade grammar/composition students how to write summaries. The students were taught using specific rules, and eventually they formulated their own set of workable rules. Teacher modeling, practice, and feedback became important components of the program. Expository text was chosen as the material to be summarized because it had the greatest relevance to the students' school work. The text was made available to the students while summarizing to eliminate the difficulty of remembering and permit crossing out and insertions. Directed Summary Instruction was designed to incorporate reading, thinking, and writing into a single unit of work, so producing a written summary for another reader was required. As an initial step in instruction, paraphrasing was used to improve the

comprehension and metacognitive processing of the students. A prior knowledge instrument was used to activate related skills in the area of summarizing and to stimulate interest in the material and objectives of the unit.

In order to test the effectiveness of peer tutoring and student interaction on learning how to summarize, one experimental class was designated to work cooperatively.

In addition to these features recommended by the research, Directed Summary Instruction attempted to further investigate the best way to teach summary writing in several new areas. Most of the research studies reviewed were short term and presented to students by researchers rather than regular classroom teachers. Directed Summary Instruction was presented over a two-week period, on a daily basis, by the regular classroom teacher, as a part of normal grammar/composition classwork. There was very little novelty involved in this study. The students perceived it to be the same old thing by the same old teacher. Combining the elements of reading, writing, and thinking was crucial to this study. One was not emphasized over the other. Many of the studies reviewed did not combine all three elements on an equal basis. Metacognitive processes were another important element of this study. First the teacher modeled these processes for the students. Later the students modeled the processes for other students, and eventually, the experimental classes formulated their own rules for summary writing. Finally, Directed Summary Instruction was designed to show relevance to the students by requiring them to summarize a chapter from their science book.

Applying this newly learned skill in a meaningful way was the final phase of Directed Summary Instruction.

Chapter Three

Research Procedures and Methodology

This study was conducted to determine whether students who received Directed Summary Instruction would produce better summaries than students who received workbook-like instruction in summary writing. A second purpose for the study was to determine whether students who worked individually would produce better summaries than students who worked cooperatively. Thirdly, the study sought to determine whether students who received Directed Summary Instruction, and produced individual products, would create better summaries than students who received workbook instruction and students who produced cooperative summaries.

Directed Summary Instruction is an original lesson plan sequence that was developed based upon research on how to teach summary writing. The purposes for teaching how to summarize were to develop several vital skills. These skills were: the careful reading and comprehension of expository material; the mental organization and condensation of this material; and the clear and precise composition of a summary. At the eighth grade level these skills are particularly important because subject area material is becoming more complex, effective research methods need to be developed, and the advanced learning tasks presented at the high school level will require more independent learners. Eighth graders are deficient in the skills required for writing an effective summary. Textbooks and other published materials did not provide a useful program. Therefore, Directed Summary Instruction was developed and tested in three regular

classroom situations.

The experimental program, Directed Summary Instruction, was presented to Class One on an individual basis. Each student worked on his own and developed an individual product. Class Two also received Directed Summary Instruction, but the product was developed cooperatively. After teacher explanation of the lesson requirement, the class worked in groups of four, in a cooperative manner, to complete the task. Class Three was the control group for this study. Instruction was provided to this class in the form of a workbook that was assembled from several published sources. The teacher offered no instruction other than that specifically outlined by the materials themselves, and questions were referred back to the printed instructions.

A total of twelve class periods were spent in the completion of this project. Included in this sequence were a prior knowledge instrument, two pretests, instructional treatment, and two posttests. The same amount of time was spent for all three classes of students.

I. Subjects

Students enrolled in three separate eighth grade Grammar/ Composition classes were used for this project. The curriculum for this course includes composition, study skill development, and strengthening critical thinking skills. These were the areas of instruction under which this unit was taught.

All of the students in the three classes were placed there by computer with the only restriction being individual scheduling needs like band or choir. Classes were heterogeneous in terms

of intellectual ability, age, and racial diversity.

Class One was composed of fourteen boys and twelve girls. This class was given Directed Summary Instruction presented to the students by the teacher. The lesson product was done individually by each student working on his/her own.

Class Two was composed of twelve boys and thirteen girls. Directed Summary Instruction was also presented to this class. Initial instruction was given each day by the teacher, but the lesson was completed by the class working in pre-arranged groups of four. The product submitted each day was cooperatively done by those four individuals.

Class Three was composed of fourteen boys and thirteen girls. Because this was the control group for the project, Directed Summary Instruction was not presented to this class in any form. Instruction was done through a workbook format consisting of a compilation of published materials. Cooperative learning was not used in this class; individuals worked on their own and produced individual products.

II. Materials

A. Experimental Groups

Three factors were used to select the materials for Directed Summary Instruction. First, reading material would be expository rather than narrative. Research documents the fact that expository text is harder for students to comprehend than the narrative text with which they are more familiar (Muth, 1987). Strengthening the students' ability to deal successfully with expository materials was an important goal for teaching the

unit on summary writing. Secondly, the reading material would be of high interest to the eighth grade reader. Prior research has shown topic interest to have a statistically significant effect on summarization (Head and Buss, 1987). Thirdly, the reading level of the material would be no higher than sixth grade since half of the students participating in this study read below eighth grade. Hidi and Anderson (1986), among others, recommended using text that was less complex, particularly in the beginning phases of instruction. The instructional sequence for Directed Summary Instruction was designed to build in complexity, so short articles were used for initial lessons while longer ones were used in later lessons (Hidi and Anderson, 1988).

Junior high readers are interested in animals. Therefore, a short article on snake babies was chosen from a natural science reference book designed for middle school students. Similarly, a longer article on Bigfoot was chosen. Popular music is another high interest area for this age group. Three short articles were selected from Music, an Illustrated Encyclopedia. This reference was in the junior high school library as was the natural science reference. Current events to which they can relate are interesting to junior high readers. Several selections were made from the Chronicle of the Year 1989 and current newspapers. Longer articles were needed for the pretest and posttest selections. "Anatomy of a Fad" was located in a current issue of a popular periodical aimed at the 12-15 year old reader. "Hibernation: Possibilities for Space Travel" came from a young adult reference about interesting science developments. "The

Origin of the Solar System" was taken from the eighth grade science textbook.

Both Class One and Class Two used these materials as a part of Directed Summary Instruction. With both classes the materials were in the hands of each student during the entire lesson. Class One was instructed by the teacher and used the materials to complete the lesson. Each student worked independently and submitted his finished lesson. Class Two was given the same materials. After preliminary explanation of what to do and how to do it, the class broke into groups of four to complete the assignment. One copy of the completed assignment was submitted while the other copies of the lesson were used as worksheets or practice sheets within the groups. The only exception to this was the individually administered pretest and posttest on "The Anatomy of a Fad."

The Appendix contains copies of all of the articles used in Directed Summary Instruction.

B. Control Group

Class Three was given a work packet to use for their study of summary writing. These packets were distributed each class period while they were in use and collected at the end of the period. The teacher led the lessons which were done individually by each student. No instruction, other than that contained in the materials, was given. Questions were referred back to the printed instructions contained in the packet. Cooperative learning was not used in this lesson sequence.

The student "workbook" was prepared in advance and issued to

each student. It contained the following materials: from Building Reading Skills, McDougal, Littell and Company, (1983), pages 31-34, and pages 55-57; from Skills for Reading, Scott, Foresman, and Company, (1984), pages 170-182 and 190-192; from Warringer's English Grammar and Composition, Harcourt, Brace, Jovanich, (1982), pages 411-414. "Origin of the Solar System," taken from the eighth grade science textbook, was also used with the control group.

The pretest and posttest items used with the control group were the same ones used with the experimental groups.

III. Procedures

In all there were seventy-eight students involved in this research poject on the writing of summaries. They were enrolled in three separate classes of eighth grade grammar/composition. Class One was given the experimental treatment of Directed Summary Instruction. They did the summary writing assignments individually during class time. Class Two was also given Directed Summary Instruction. However, this class did their summary writing assignments in groups of four, working cooperatively. Thus, the product created was a group-written summary utilizing the additional elements of peer tutoring and cooperative learning. Neither of the other two classes used cooperative learning as a part of their instruction. Class Three, the control group, received instruction via workbook and textbook exercises. These exercises came as close as possible to the summary writing skills that were being taught. The instruction, however, was limited to that presented in the

materials themselves. There was no modeling or additional instruction given by the teacher.

The project began with a one class period introduction by Dr. Sherrie Shugarman. During this time she explained the purposes for the unit of work and administered a prior knowledge instrument. Students were told that they were helping to discover how teachers can teach eighth grade students to write summaries. The prior knowledge instrument that they were taking would help teachers figure out how to teach and where to begin.

On the next class day the two pretests were administered. One of these pretests was an individually generated summary, and the other was generated in a group situation. No instruction was given about how to summarize before either of these pretests was administered. For the individual pretest students were given a copy of the article "Anatomy of a Fad" and told to write a summary of the article on a sheet of their own paper. Twenty minutes were allowed to do this. The groups used for the cooperative summary pretest were set up ahead of time by the teacher. Each student was given a copy of the article, "Hibernation: Possibilities for Sapace Travel." The students were told only to work cooperatively to compose the group summary with one student doing the writing for each group. All pretests were collected.

The following nine class periods were spent in the instructional phase of this project. The periods were the regularly scheduled grammar/composition class period for these students. The periods were 50 minutes in length. The work was

done within the classroom with no homework assignments being made. The slower working students did, occasionally, complete an assignment on their own time. In this way each class was able to stay on schedule.

Following the nine days of instruction the posttests were administered. The same instruments were used for posttest that had been used for pretest. The first posttest was individually generated by the students, and the second was a group project. This time the students were advised to use whatever skills they had learned about summary writing to complete their task. They were given permission to mark on the articles if they wished. These posttests were collected. At this time evaluation took place. The Rating Scale was applied to each pretest and posttest submitted and scores were affixed. These tests were returned to the students for viewing but recollected.

IV. Treatment

A. Experimental group - individual, Class One

The purpose of this treatment was to evaluate Directed Summary Instruction during the succeeding ten days of class time. The elements that were purposely incorporated into Directed Summary Instruction were: 1. Use of expository material. 2. Selection of material of high interest to junior high aged students, but below eighth grade reading level. 3. Use of individual copies of the material in the possession of each student. 4. Modeling of cross-out, inserting, and circling porcedures on the articles being used. 5. Direct instruction of rules for summarizing. 6. Teacher modeling of each activity and

talking out of the thinking process being used. 7. Practicing each step more than once with different materials. 8. Developing a set of rules by the class for use in summary writing. 9. Use of these rules for summarizing a chapter taken from their science textbook.

A one-page chart which details the instructional sequence for the two experimental groups and the control group may be found on page 40. The scripts for the Individual, Cooperative, and Control groups may be found on pages 41, 56, and 64, respectively.

Instructional Sequence

Day	Group 1 Individual	Group 2 Cooperative	Group 3 Control
1	Prior knowledge	Prior knowledge	Prior knowledge
2	Pretest I. Pretest II.	Pretest I. Pretest II.	Pretest I. Pretest II.
3	Paraphrase	Paraphrase	Pages 1-2 of workbook
4	Guided para-phrase	Guided para-phrase	Pages 2, 3, 4 of workbook
5	Paraphrase on-your-own	Paraphrase on-your-own	Pages 5, 6, 7 of workbook
6	Paraphrase & sentence summary	Paraphrase sentence summary	Pages 8, 9, 10 of workbook quiz grade
7	One sentence summary quiz grade	One sentence summary quiz grade	Pages 11-16 of workbook
8	Guided summary	Guided summary	Pages 16-20 of workbook
9	Summary - less guidance	Summary - less guidance	Finish workbook Graded
10	Summary on-your-own Make rules	Summary on-your-own Make rules	Textbook summary
11	Science book summary	Science book summary	Science book summary
12	Posttest I Posttest II	Posttest I Posttest II	Posttest I Posttest II

Script for experimental class using Directed Summary Instruction and producing an individual product.

Day 1: Prior knowledge activity

Day 2: Pretest I and Pretest II

Day 3: Understanding paraphrasing

Distribute individual copies of "What Does It Mean to Paraphrase?" activity. (See Appendix for copies of the following lessons.)

Say: To begin our study of summarizing, we will start with learning to paraphrase. What is the title of this paper?

Answer: "What Does It Mean to Paraphrase?"

Say: That's correct. We are going to answer that question by studying this paper. Follow along with me as I read the first paragraph on the paper.

Say: Now on-your-own read the second paragraph.

Ask: Do you see any relationship between the two paragraphs?

Answer: Yes, they are pretty much saying the same thing.

Ask: If they are saying the same thing, what is the difference?

Answer: The wording is different.

Say: That's right. When you paraphrase, you say the same thing with different words.

Write on the board: Paraphrase = saying the same thing in different words.

Say: What you see in front of you is a paragraph and a paraphrase of that same paragraph.

Ask: What do you think the purpose of paraphrasing would be?

Answer: To make it easier to understand.

Say: That's right. Let's see how this paraphrase was done.

Cover the bottom paragraph with a piece of paper.

Say: Now re-read the first sentence in the first paragraph.

Uncover the first two sentences in the second paragraph.

Ask: What differences do you see?

Answer: The words are different. The word "prodigious" is gone.

Say: One of the important things that you do in paraphrasing is change difficult words to easier words.

Write on the board: Change difficult words to words that are easier to understand.

Say: Read sentence two from the top paragraph. Uncover the next sentence in the second paragraph and compare the two.

Ask: Where did the phrase, "Scientists have studied a great many people" come from?

Answer: It is not in the first paragraph.

Say: That's true. What does the first paragraph say that could mean the same thing?

Answer: "Research statistics"

Write on the board: Words may be added in paraphrasing.

Ask: What happened to the words "southpaw" and "counterparts?"

Answer: They are gone.

Write on the board: Words may be omitted in paraphrasing.

Say: Look at sentence three in the first paragraph and compare it to the next sentence in the other paragraph. Which sentence makes more sense to you?

Answer: The second one, without difficult words.

Say: Now check the rest of the two paragraphs. Notice that

wording is also rearranged when paraphrasing.

Write on the board: Words may be rearranged when paraphrasing.

Ask: Now what do you understand paraphrasing to mean?

Answer: It is rewording that expresses the meaning in a different, more understandable way.

Say: Look at our list of statements about paraphrasing. That is how do do it. Next you will try your hand at paraphrasing.

Day 4: Guided paraphrasing

The statements about paraphrasing are once again on the board. Distribute individual copies of the "Bigfoot" article and study guide.

Say: Continuing with our work in paraphrasing, we are going to paraphrase this article. First we will review what paraphrasing means. Let's read again the statements we made yesterday. Read these statements aloud:

Paraphrase = saying the same thing in different words

Change difficult words to words that are easier to understand.

Words may be added in paraphrasing.

Words may be omitted in paraphrasing.

Words may be rearranged in paraphrasing.

Say: Before we paraphrase this article, we will read it out loud. Either the teacher or designated student may do this.

Say: Notice the numbers beside each paragraph. Find those same numbers on the study guide. That will tell you which paragraph you are working on.

Say: Read pragraph #1 on the activity sheet to yourself. What appears to be the purpose of this paragraph?

Answer: It is a retelling or paraphrase of paragraph #1 of the article.

Ask: What happened to the words "shaggy, humanlike creatures" in the paraphrase?

Answer: It was changed into "hairy cretures who looked a little like a man"

Ask: What happened to the word "Seeahtik?"

Answer: It disappeared. It was not necessary to meaning.

Ask: Which is longer, the original article or the paraphrased article?

Answer: The paraphrased article.

Say: Paraphrasing does not necessarily shorten or condense material; it simplifies it.

Say: Look at paragraph #2. Read the words in parentheses.

Ask: To what does "who" refer?

Answer: Miners.

Ask: To what does "where" refer?

Answer: A "canyon in the state of Washington."

Ask: To what does "claimed what?" refer?

Answer: "Shot and wounded a big creature."

Say: On the lines provided, write a complete sentence in which you give this information.

Ask: What did this creature look like?

Say: Write a sentence in the space provided that states that the creature was big and looked like a gorilla.

Ask: What happened then?

Answer: Several similar creatures attacked them.

Say: State that in sentence form on the provided lines.

Ask: What is another claim?

Answer: A man claimed that he had been held prisoner by four, large, hairy, human-like creatures.

Say: Put that statement on the last three lines of paragraph #2. There are questions in parentheses followed by lines. The questions tell you what information is required, and the lines are where you are to retell that information.

Ask: Who claimed what?

Answer: Many people said that they had seen these creatures.

Say: Notice how the word "many" can replace "numerous." Notice that some words are left out entirely, (over a period of many years) and that the wording can be re-arranged.

Ask: What was found?

Answer: Footprints.

Ask: How big were they?

Answer: Sixteen inches by seven inches. It was named Bigfoot because of its big footprints.

Say: Write that in the blank.

Say: Continue with paragraph #4. Use the same method that we have been practicing. Finish the article and your paraphrase. Circulate to check progress and give additional individual help. The papers will be collected when finished. Before collecting them have at least one volunteer read aloud the completed paraphrase. The students will receive credit for completing the

assignment, but this assignment will not be graded.

Day 5: Paraphrase on-your-own

Begin class by reading a sample paraphrase of "Bigfoot."

Ask: What did I just read an example of?

Answer: Yesterday's assignment. It is a paraphrase of "Bigfoot."

Ask: What does paraphrasing mean?

Answer: It means to say something in different words.

Ask: Why would you want to paraphrase something?

Answer: To understand it better.

Ask: When you paraphrased "Bigfoot" what were some of the things that you changed?

Answer: I changed big words into smaller, more meaningful words; I changed the arrangement of the words; I took some words out; and I added some words.

Say: When you paraphrase be very careful not to change the meaning of the material that you are working on. You are just putting it into other words.

Ask: So what is the difference between the paraphrase and the original?

Answer: The paraphrase should be easier to understand.

Note examples in the paraphrase where big words were changed into smaller words; where word arrangements were changed; where words were omitted; and where words were added.

Distribute the article "Snake Babies".

Say: You are to paraphrase this article the same way that you

did the article yesterday. However, this time I have not given you any helping questions. As you begin, read the whole article carefully. Then, on the second reading begin to paraphrase one phrase at a time. Use commas and periods to guide you. Have your own piece of paper side-by-side with the article as you work. Be sure to eliminate the "big and difficult" words from your paraphrase. Don't be afraid to change word order or add words as you work. Your paraphrase may end up longer than the original article. When you are finished, read your paraphrase to make sure that it makes sense, and that you have said what you planned to. Your paraphrase is to be turned in as soon as you are finished.

While the students are working, circulate to offer individual help when needed.

As soon as possible a representative group of competent paraphrases will be displayed for viewing by the class.

Day 6: Combining paraphrase with guided one-sentence summary

Say: Today we are going to combine paraphrasing with summarizing. Summarizing means condensing material by taking out the less important parts and leaving in the most important parts.

Distribute two papers -- the article on pulse rate and the study guide (See Appendix for this lesson.)

Read aloud the article to be summarized.

Read the objective at the top of the study guide.

Follow the steps outlined on the guide. Work through steps 1-4 as a group with answers agreed upon aloud. Each student is

expected to complete the study guide at his seat as the class progresses. The students should write their summaries individually having been prepared step-by-step to do so. Circulate while the class is working to offer encouragement and guidance.

Collect all finished papers.

Day 7: One sentence summary

Say: Today we are carrying on the idea of making one-sentence summaries of short articles. What we are actually doing is picking out the main idea and eliminating the detail from these paragraphs.

This assignment will be graded.

Distribute the assignment.

Say: You see that this assignment is five short news-type stories. After each story there are three lines on which you are to write your summary sentence.

Say: Let's try the first one together. Read the first paragraph. What appears to be the subject or topic of this paragraph?

Answer: Rock music.

Ask: What idea is being expressed about rock music?

Answer: That it is now being heard in the People's Republic of China.

Ask: Do you see any other idea being expressed?

Answer: That the rock music in China is not at all like the rock music in the Western world.

Say: That's right. Now let us create a sentence. The subject of our sentence will be "rock music." Then we will state the two ideas that rock music "has come to China" and that "it is very different from the rock music that we listen to."
Ask: Can someone compose such a sentence out loud?
Answer: Although the People's Republic of China permits rock music, it is very different from the Western version.
Say: Everyone write that sentence or a similar one on the lines following paragraph #1.
Say: Continue on with the other four paragraphs using the same procedure as the one that we just used. Write your one-sentence summary on the lines following each paragraph. This assignment is due at the beginning of class tomorrow.
Circulate the room giving individual help as needed.
Collect all completed papers.

Day 8: Model summary writing with guided exercise
Say: Today we are going to practice together writing a summary on a short article. Our summary will be more than one sentence and will mention all the important ideas presented in the article.
Distribute the article on Pop to each student.
Say: Read the article "Pop" carefully.
Say: Skim the article quickly and pick out the topic. What word do you see several times that appears to be the topic?
Answer: Pop.
Say: That is correct. Underline the word "pop" each time you

see it. (seven times.)

Say: Now that we know what we are talking about, let's see what is being said.

Ask: What is "pop"? Is it a soft drink, Dad, or music?

Answer: It is popular music.

Say: That's right. Should your summary define the topic?

Answer: Yes, it should.

Say: Then the first idea to express is a definition of "pop".

Say: Let's find the definition of the term in the article. Pick out the exact words that tell you what "pop" is being discussed. Those words are "Popular music is called pop."

Say: Now let's cross out those words that are unnecessary to that definition. Draw a line through "often, music, for short". What we now have left is: Popular music is called pop. That is the first sentence of our summary.

Say: Now let's go through this article, line by line, and cross out those words which we do not think are very important to the meaning of this article. At the same time draw a circle around "pop" each time you see it.

Say: Look closely at "pop" each time it appears and see what the article is saying at that point about "pop". Now draw circles around those words that explain what statement is being made or what idea is being expressed about "pop".

Say: Now we will number the main ideas that we have discovered. They are: 1. Pop is performed by stars and groups. 2. Pop makes use of many styles. 3. Pop is known as "middle of the road" in style. 4. Singers come and go quickly in pop music, but some

become stars. 5. Presentation is very important in pop.

Guide the students to discover these main points by crossing out and highlighting words and phrases.

Say: Number the main ideas you have found. There are five, plus the definition.

Ask: Are there some ideas that we can combine?

Answer: Yes, by eliminating the word "pop" we can combine ideas. For instance, pop is performed by stars and groups who make use of many styles in their performances.

Say: That's good. Combine ideas whenever you can easily while making your summary.

Ask: Is there any place where we should insert an idea or word?

Answer: Yes, "many" can be inserted to replace "rock, soul, folk, or country."

Say: Good. Insert a word here and there in your main idea statements to fill out the idea being expressed in a more condensed manner. Another suggestion: insert "entertainingly" to replace "usually light and entertaining."

Say: Now we are ready to write our summary. You have identified the topic. You have defined your topic. You have numbered the main ideas you need to express. Write a summary paragraph at the bottom of this sheet. It will be several sentences long and will express in condensed form the main ideas of this article. Collect all papers when completed.

Day 9: Model summary writing with less guidance.

Say: Today we are going to write another summary using the same basic method that we did yesterday.

Distribute the article "Rock Music".

Ask: What is the first thing that we should do in order to summarize this article?

Answer: Read and understand the article.

Say: Yes, that is exactly right. Please read the article now.

Ask: Now that we have read it, what is the second step?

Answer: Figure out what the topic or subject is.

Say: Exactly right. Now what appears to be the subject?

Answer: Rock music.

Say: Right. Is that term defined in the article?

Answer: Yes.

Say: Then our summary must include a definition of rock music.

Say: Use the underline and cross-out technique that we used yesterday to discover the main ideas presented in this article.

Circulate to see that the students are being successful in doing this. Offer help where necessary.

Through class discussion identify the four main ideas as: exploded in the 50's and is still very popular; combines rhythm and blues with country; is simple and direct; has produced superstars like Elvis.

After the main ideas are identified and numbered on each sheet, ask the students to write, in paragraph form, their summary of the article.

Say: Remember that your summary must contain the main ideas that

we identified and must be in good paragraph form.
Have several volunteers read their completed summaries.
Collect the finished worksheets and summaries for evaluation.

Day 10: Formulation of rules and summary writing on-your-own
Say: Today we are going to formulate some rules for summary writing and then use those rules to compose a summary. This summary will be graded.
Through class discussion generate a list of seven rules. These the teacher will list on the board for all to see. Use as much guidance as necessary to create this list. Wording may vary slightly but the essence must remain the same. This list will be duplicated and given to the students on the following class day.

1. Read and understand the entire section to be summarized.
2. Re-word or paraphrase any important but difficult words that might affect meaning.
3. State the main idea of the article in sentence form.
4. Choose only important ideas.
5. Eliminate trivial detail and duplication.
6. Group together details and ideas whenever you can.
7. Rewrite, in good paragraph form, your summary.

Say: We will leave this list on the board to help you write your summary for today.
Distribute copies of the article "The Triumph of Technology."
Say: You have 20 minutes to read and summarize this article.

Use the rules we have listed on the board to help you. Write your completed summary on the bottom of the second page. These summaries will be graded.
Circulate while the students work to answer individual questions.
Collect all completed work.
Evaluation based on:
25% for statement of main idea which is that popular music is dependent on and closely tied to technology.
50% on statement of important ideas and significant detail which are: 1. Radio, records, and microphones were important in the past. 2. Modern technology has produced advanced recording techniques and created disco music. 3. Electropop features electronic instruments like synthesizers and computer generated music. 4. Videos are the latest advancement.
25% on good paragraph and sentence formation.

Day 11: Application of summary writing
Distribute list of rules formulated the preceding day.
Say: These are the rules that we made yesterday for summary writing. Keep these rules to help you in future situations. Today you are going to apply what you have learned about summary writing to a reading assignment that you may have this year.
Distribute copies of the article, "Origin of the Solar System."
Say: This article was copied from your science textbook. I don't know whether you have read it from there yet or not. It doesn't matter whether or not you have. What I want you to do is follow the rules for summarizing that we have listed and write a

summary of this article. Your summary is to cover just the article itself. The pictures, diagrams, and review questions do not need to be included.

Say: Notice that textbook material is very condensed already. Summaries will tend to be longer on textbook material than on less concentrated material. The purpose of making a summary of material of this kind is to help you better understand the material and to help you remember the material. In addition, if you have written down your summary, you will have a very useful study tool to refer to.

Say: You have 30 minutes to write this summary. Collect all papers.

This summary was read but not graded. It proved to be very difficult for the students to do. They indicated that they were not in the habit of reading their science textbook.

This was the last lesson in the treatment phase.

Day 12: Administer Posttest I and Posttest II.

B. Experimental group - cooperative learning, Class Two

This class was given Directed Summary Instruction for summary writing. However, the additional element of cooperative learning was used as well. In the other two classes the cooperative, peer tutoring, approach was purposefully avoided. The purpose of this treatment was, not only, to test the effectiveness of the techniques for summary writing, but also the effectiveness of writing summaries cooperatively.

Script for experimental class using Directed Summary Instruction and producing a cooperative product.

Day 1: Prior knowledge activity

Day 2: Pretest I and Pretest II

Day 3: Understanding paraphrasing.

This day's lesson was identical to that taught to Class One on the first day of instruction. See Class One, Day 3: Understanding paraphrasing, for this script.

Day 4: Paraphrasing in cooperative groups

The statements about paraphrasing are once again on the board. Distribute individual copies of the "Bigfoot" article and study guide.

Say: Continuing with our work in paraphrasing, we are going to paraphrase this article. First we will review what paraphrasing means. Let's read again the statements we made yesterday. Read these statements aloud:

Paraphrase = saying the same thing in different words

Change difficult words to words that are easier to understand.

Words may be added in paraphrasing.

Words may be omitted in paraphrasing.

Words may be rearranged in paraphrasing.

Say: Now you are going to practice paraphrasing. This time, however, you will be working in groups of four. After conferring together, each group will complete one copy of the activity to be submitted.

Distribute individual copies of the rules for group work. (See Appendix for a copy of these group work rules.) Read these rules out loud. Answer any questions regarding the rules.

Say: These are the rules by which you will do your assignments for the next eight days.

Make the pre-determined group assignments and arrange the class accordingly. Three people will bring chairs to arrange around the 4th person and two desks. All members of the class will be given the activity "Bigfoot" and the study guide. Only one of the finished study guides for this activity will be turned in. It will contain the names of the four persons in that group.

Say: This activity sheet will be completed by each group working together to decide on what the best possible answer in each case is. The first step in each case will be for person #1 to turn to person #2, and person #3 to turn to person #4. Therefore, everyone will be working in pairs. Alternating turns in the discussion, one person will tell the other what he/she thinks is the best answer. When the second person agrees, pair one will share with pair two, and the decision for the final answer will be made. One person in each group will be designated scribe and

will complete the written work. Only this paper will be turned in; the others are work sheets. Each member of the group will sign the final paper. When you sign off on the project, you are saying, "Yes, I agree with this and it is the best job we can do."

Say: Continuing our work in paraphrasing, we are going to paraphrase this article. First we will read the article out loud. Either the teacher or designated student may do this.

Say: Read paragraph #1 on the activity sheet to yourself. What appears to be the purpose of this paragraph?

Answer: It is a retelling or paraphrase of paragraph #1 of the article.

Ask: What happened to the words "shaggy, humanlike creatures" in the paraphrase?

Answer: It was changed into "hairy creatures who looked a little like a man."

Ask: What happened to the word "Seeahtik?"

Answer: It disappeared. It was not necessary to meaning.

Say: As you continue on in your group to prepare this paraphrase, note the guiding questions. They will help you decide what information to write down. The final paraphrase will be longer than the original article. Paraphrasing is not a condensation but a rewording. Its purpose is to simplify, or clarify meaning.

Collect group activity sheets when completed.

Day 5: Paraphrase activity

Read one of the completed paraphrases.

Ask: What was the purpose of this activity?

Answer: To paraphrase it.

Ask: What does paraphrasing mean?

Answer: To re-say something in different words.

Ask: Why would you want to paraphrase something?

Answer: In order to understand it better.

Ask: When you paraphrased "Bigfoot" what were some of the things that you changed?

Answer: We changed big words into smaller, more meaningful words; we changed the arrangement of the words; we took some words out; and we added some words.

Say: When you paraphrase, be careful not to change the meaning of the material that you are working on. You are just putting it into other words.

Ask: So what is the difference between the paraphrase and the original?

Answer: The paraphrased article should be easier to understand. Note examples from the paraphrase of changing big words to smaller words; changing word arrangements; words omitted; and words added.

Distribute the article "Snake Babies."

Say: You are to paraphrase this article the same way as you did yesterday. However, this time there are no helping questions. As you begin, read the whole article carefully. Then begin paraphrasing one phrase at a time. Use commas and periods to

guide you. Keep your article visible as you work. Be sure to eliminate the "big and difficult" words. Don't be afraid to change word order or add words. When you are finished, read your paraphrase to make sure that it makes sense, and that you have said what you planned to.

Say: Now move to your groups to continue this assignment. Begin by working in pairs. There are eight sentences. Compare and write the paraphrase after each sentence. The paraphrase may contain more sentences than the original.

Collect the completed assignments.

Display all the group paraphrases on the board on the following class day. Also display several individual paraphrases for comparison. Identify these paraphrases.

Day 6: Combining paraphrase and summary

Note the paraphrases displayed on the board.

Say: Today we are going to combine paraphrasing with summarizing. Summarizing means condensing material by taking out the less important parts and leaving in the most important parts. Distribute the two papers for this activity. Now move into your groups.

Say: Begin today by having the Checker in your group read the article aloud. This person will then lead the group through Step 1 and Step 2. The Scribe will record. Continue with Steps 3, 4, and 5 in pairs, as yesterday. Compare and complete the assignment after pairs have agreed.

Say: Turn in your group paper as soon as you have finished.

Circulate to monitor group progess.

Day 7: One sentence summary

Say: Today we are continuing the idea of one-sentence summaries. What we are actually doing is picking out main ideas and eliminating the detail.

Distribute the assignment.

Say: You see that this assignment is five short news-type stories. After each story there are three lines on which you are to write a summary sentence.

Say: Move into your groups. First, work in pairs and then complete the group assignment sheet. Look for the topic, and then decide what is being said about that topic. The idea expressed about each topic will be your sentence summary. This assignment will be graded. Each member of the group will receive the grade given to the group paper.

Collect the completed assignments.

Day 8: Model summary writing with a guided exercise.

Say: Today we will work individually on this lesson. We are going to write a summary on a short article. Our summary will be more than one sentence and will mention all the important ideas presented in the article.

Distribute the article "Pop" to each student.

From this point on the day's script is identical to the lesson given to Class One on Day 8. See this script for the remaining lesson.

Day 9: Model summary writing with less guidance

Say: Today we are going to write another summary using the same basic method that we did yesterday. This time, however, you will be working once again in your groups.

Distribute the article "Rock Music."

Say: Before you go to your groups, let's review the steps that you will go through in writing the summary.

Ask: What is the first step?

Answer: Read and understand the material.

Ask: After reading, what is the second step?

Answer: Figure out the topic, and what is being said about it.

Say: That's exactly right. The finished summary should contain for main ideas, a definition of terms, and be written in good paragraph form.

Say: Go to your group to continue the lesson. Turn in the group's completed summary to me.

Read one completed summary out loud at end of the period.

Day 10: Formulate rules and write summary on-your-own

Say: When you go to your group today, make a list of at least six steps that should be followed when making a summary. The Scribe should write these steps down for the entire group to read and agree to.

Say: We are going to summarize today, using the rules you have made.

Distribute the article "The Triumph of Technology."

Say: As a group summarize this article. Turn in your summary to

me, this time for grading. Each member of the group receives the same grade, help one another be successful.

Evaluation: 25% for statement of main idea
50% for main ideas and significant detail
25% for good sentence formation and paragraph form

Day 11: Application of summary writing skill

Say: Here is a copy of the rules for summary writing that were developed by students yesterday. Use them in a real situation. The article that you are going to summarize today was copied from your science book. Whether or not you have covered the chapter so far in class does not matter. Follow the procedure that your group has agreed upon for summarizing this article. The pictures, diagrams, and review questions do not need to be included in your summary.

Say: I hope that you will see how being able to summarize can help you in your other classes. It should help you pick out main ideas, define terms, understand better the reading material, and become a more successful student at grade time. Good luck!

Distribute copies of the article, "Origin of the Solar System."

It was observed during this difficult summary task that some members of the group, notably the Scribe, worked harder on the task than did the other members of the group.

C. Control group - Class Three

This class served as the control group for this project. Their period of treatment was the same length of time as the experimental classes. The materials that this class utilized were taken from textbook sources. They were put in workbook form to simplify instruction and student use.

Script for control group, Class Three, using workbook format for instruction.

Day 1: Prior knowledge activity

Day 2: Pretest I and Pretest II

Day 3: Distribute workbooks to class.

Say: These workbooks are for your use during the next several days while we work on learning to summarize. You will turn it back in at the end of each class period, but it will be returned to you the next day. Put your name on your workbook.

Say: Let's begin by reading together the first activity.

Selected students or teacher may lead this reading down to the "Try the Skill" portion. Emphasize that the phrase "bowling is a sport with widespread appeal" is the main idea statement for the paragraph.

Ask: Now will someone who enjoys surfing read the next paragraph?

After it has been read, read the instruction for writing the main idea statement for this paragraph.

Allow a few moments for this activity. Circulate to evaluate progress. Have at least one student read the completed sentence.

Refer any questions back to the written instructions.

Say: Continuing on, read the instruction preceding "How to Jog."

Ask: Will a jogger read the next paragraph out loud?

Ask: What is the main idea of this paragraph?

Answer: How to enjoy jogging.

Day 4:

Start with "Try the Skill" page 2.

Say: Continuing on, read the next line out loud.

Ask: Will a sports nut read the next paragragh?

Allow a few minutes for the class to make a choice of answers.

Ask: What line did you choose? Emphasize the correct answer as The Sports-Television Connection.

Read: Number 2 instructions.

Ask: Will a fan of the Olympics read this paragraph?

Allow a few minutes for the class to do this activity in silence.

Ask: What title did you write?

Emphasize that the title should indicate that since their revival in 1896, the Olympics have expanded greatly.

Continue on to Exercise 1. Read aloud the instructions.

Ask: Will someone who enjoys walking read this paragraph?

Ask: Why have some of the words been underlined?

Answer: Because they are important details.

Ask: What are you asked about these details?

Answer: What they have in common.

Say: Yes, you are to combine these ideas into a statement that is the main idea of this paragraph.

Allow a few minutes for writing this statement, circulating while it is being done.

Ask: Will someone read his/her statement?
Be sure that the main idea statement includes the ideas that walking is simple, fun, and good for you.
Continue on to Exercise 2 by reading aloud the instructions.
Ask: Will a volleyball player read this paragraph out loud?
Following the reading, Say: The lines are for you to list details that were contained in the paragraph.
Allow a couple of minutes to do this activity.
Say: Let's list some of these details.
Continue on to Exercise 3. Read the instructions out loud.
Ask: Who will read this longer section out loud for us?
After the reading, read the Follow Through and emphasize that the main idea statement is to be written at the bottom of the page where there is sufficient room.
Read several samples and check work at seat.
Day 3:
Start on page 5 of workbook.
Read the instruction material down to the article "Pipe Nightmare: Heading for Disaster?" Exclude items 2, 3, and 4 because they are not being covered in this unit.
Say: We will read out loud the two articles. Allow volunteers to read paragraph by paragraph the articles.
Say: Now turn to page 7. Do Exercise 1 on your own now. Allow time to do this. Allow volunteers to read main idea statements. Be sure that the statements mention pipelines, what they carry, and what the problem with them is, i.e. deteriorating and not being repaired or inspected adequately.

Say: Continue on the Exercise 2. Work on-your-own for five minutes.

Say: Let's go over the answers you have chosen. Emphasize correct responses to the questions.

Read out loud the instructions in Exercise 3. Choose a volunteer to read the paragraph out loud. Allow time for the students to underline details and write their main idea statements.

Say: We need to hear several answers to this exercise. Hear a variety of answers and have the class reach agreement on something like: A better life costs more than money.

Day 6:

Start on page 8 in workbook.

Say: In the following paragraphs we are going to identify the topic being discussed. Read silently each paragraph. Underline the topic, one to four words, in each paragraph.

Ask: What is the topic of paragraph 1, 2, 3, 4, and 5?

1. football 2. beauty aids 3. labels on foods
4. kinds of dogs 5. invisible inks

Say: Now turn to page 9. This exercise will be graded, so work carefully. Read each paragraph well. Identify the topic in each and then decide what statement is being made about it. In a sentence write the main idea of each paragraph.

1. Sentence one is the main idea statement.
2. The last sentence is the main idea statement.
3. Penicillin is great but it is not a cure-all.
4. Sentence two is the main idea statement.

5. Characteristics of the mule deer.

Collect all the workbooks.

Day 7:

Return the graded workbooks to the students. Two grades have been given. One is for the one-sentence summary exercise, and another for completing the workbook exercises up to this point. Completion and accuracy were the criteria used.

Go over correct response to the quiz and answer questions.

Say: Turn to page 11 in your workbook. Read the instructions out loud.

Ask: Who will read this paragraph out loud?

After reading, allow time for answering questions 1 and 2. Then, read the discussion that follows the exercise out loud.

Say: Let's go on to Exercise 2. Allow about five minutes for class members to do each paragraph and answer the questions. Correct the work as each paragraph is finished before doing the next. Continue through D.

Say: Now turn to page 15. Ignore lines 1, 2, and 3, and begin reading "As you read . . ."

Say: Continue with this paragraph as you have been doing.

Read: The last two paragraphs on this page.

Day 8:

Start on page 16 of the workbook.

Say: Today we are going to continue with our work on summarizing. We are looking for main ideas and putting them together.

Ask: A volunteer to read A, B, and C aloud.

Say: After each reading, choose your answers. Check answers before going on.

Say: Now turn to page 18. Read the section before the poem.

Ask: A volunteer to read the poem.

Say: Answer the two questions.

Check the work and read to the end of the page.

Day 9:

Say: Now turn to page 20 in your workbook. This longer article and the work following it will be a graded exercise. Proceed as follows:

1. Read article, paragraph by paragraph out loud with volunteers.
2. Read each question and allow students to mark answers.
3. Complete to the end.
4. Collect the workbooks for grading.

Say: Tomorrow we will be working in your grammar book. Bring it to class tomorrow.

Day 10:

Return the graded work to the students. The workbook was once again graded for completeness and accuracy. Explain the correct

answers and answer questions.

Say: Now we will work in your grammar book. Open the book to page 411. Read aloud pargraph 1.

Ask: Why is the red print in the book?

Answer: Because it is important.

Say: Yes, that's true. It is a definition of a summary. That is what we are trying to do. Continue reading from the text. Number the steps outlined in the text. (3)

Ask: Who will read about Halley's comet?

Ask: Now who will read the summary?

Read the paragraph that follows this summary.

Say: Exercise 1 is for you to do on-your-own. Read the instructions carefully and complete the summary carefully. Turn in your work when you are finished. You will need to use your own paper for this assignment. There is no other assignment for this period.

Read one or two completed summaries to the class.

Day 11:

Say: Today we are going to try to make your work in summarizing a little more relevant. The article that I am going to ask you to summarize is taken from your science textbook. You may or may not have read it before. Your job is to summarize this article. The summary does not need to consider pictures or diagrams, just the written material.

Distribute copies of the article: "Origin of the Solar System."

To further help your in your work, I am going to give you some

rules as a guide while you summarize this article.

Distribute copies of the rules that were developed by Class One. (A copy of these rules is in the Appendix.)

Allow the class the period for completing this work.

Day 12: Posttest I and Posttest II

V. Pretest and Posttest Evaluation

In this research project the same article was used for the pretest and the posttest. The pretest was the first experience the student had with the article. It was also the introduction to summarizing in the eighth grade grammar/composition class. When the unit of work was completed, the students once again summarized this article.

Evaluation of this writing sample was crucial to ascertaining what learning had taken place. Two criteria were especially important. One was to limit subjectivity as much as possible. The other was to give each paper a rating that was meaningful and yet comparable with other papers, those of other students as well as the two samples from each student.

The first step in the evaluation process was to solicit written summaries of the article from several professional colleagues. These summaries proved to be very similar in nature and provided a model summary.

The next step was to develop a Rating Scale. A combination of several authorities was used to develop this scale. Holistic evaluation is quite valid for writing samples, but the statistical relevance of this sample made a numerical score very desirable. The Rating Scale developed used both holistic and specific analysis to arrive at a score. Atwell (1987) suggested a check list approach combined with interview. The interview was not possible. Vacca and Vacca (1989) recommended a primary trait scoring through the use of a rubric. This approach did not offer the fine distinction required in numerical scoring. Developing

Writing Competence published by the Ohio State Board of Education (1989) provided many samples of scales to use in the evaluation of writing samples. Finally, A Model for the Evaluation, by Roger McCraig (1984) provided a great deal of valuable help as well as many writing samples to coordinate with grade-level rubrics. The Rating Scale that was subsequently developed was devised from a compilation of all of the above sources.

The scale assigned 100 possible points to a summary. Seventy-five of these points went to the expression of ideas in the article and twenty-five were awarded for composition form. The Rating Scale was as follows:

Main idea of article	10 points
Specific topic	10 points
Development of main idea (three topics)	20 points
Detail (three general areas)	35 points
Paragraph unity	5 points
Sentence structure	5 points
Organization	5 points
Clarity	5 points
Mechanics	5 points

This scale was applied to each pretest paper and posttest paper submitted, resulting in a numerical score for each. In this way each piece of work could easily be compared to every other piece of work. In addition the pretest and posttest performance of each student was easily discernible.

A Rating Scale similar to the one used for the individual pretest and posttest was developed for evaluating the cooperative summary article as well. This Rating Scale was as follows:

Main idea of article	25 points
Supporting details, including legends, semi-hibernation, slow down of systems, control, fat layer, serum, future	50 points
Unity	5 points
Sentences	5 points
Organization	5 points
Clarity	5 points
Mechanical errors	5 points

This Rating Scale was applied to each cooperative pretest and posttest that was submitted, resulting in a numerical score.

CHAPTER FOUR

Results

The purpose of this study was to determine if students who received Directed Summary Instruction would produce better summaries than students who received standard workbook instruction in the writing of summaries. A second purpose of the study was to determine if an individual approach to summary production was more effective than a cooperative approach.

The hypotheses were:

* Students taught summary writing by Directed Summary Instruction will construct summaries that are statistically significantly different from those summaries constructed by students receiving standard workbook instruction based on the teacher constructed rating scale used to assess pre and post tests.
* Students taught summary writing by Directed Summary Instruction who produce an individually constructed product will write statistically significantly different summaries than students who produce a cooperatively constructed summary based on the teacher constructed rating scale used to assess pre and post tests.
* Students taught summary writing by Directed Summary Instruction who produce an individually constructed product will write statistically significantly different summaries than students who produce a cooperatively constructed summary, or students who receive standard

workbook instruction based on the teacher constructed rating scale used to assess pre and post tests.

At the conclusion of the research study testing these hypotheses, eighteen individuals in Class One had taken both the pretest and posttest. This class received Directed Summary Instruction and produced an individual product. Twenty-three members of Class Two took both the pretest and the posttest. This class received Directed Summary Instruction but produced a cooperative product. Twenty members of Class Three took both the pretest and posttest. This class was the control group. This came to a total of 61 students. Although the class enrollment at the time of the project totalled 78, only those individuals who were present for both the pretest and posttest exercises were included in the statistical analysis.

Prior to instruction, the members of the three classes were heterogenously mixed and placed into Class One, Two, and Three randomly. In addition the choice of which group would receive which treatment was randomly made.

I. Quantitative Results

A One-way Analysis of Variance for Independent Samples (ANOVA-parametric) was used to assess the pretest results for the three classes. There were no statistically significant differences among the results of the pretest in these classes. In other words this analysis indicated that all three classes performed the pretest exercise without a significant difference in achievement. To corroborate this finding, as well as to test whether there was any significant difference in the distribution

of scores, the Kruskal Wallis One Way Anova (nonparametric) was used. This analysis also showed no significant differences in the performance of Classes One, Two, and Three.

A One-way Analysis of Variance for Independent Samples (ANOVA-parametric) was used to assess the posttest scores of Classes One, Two, and Three. The ANOVA did measure a statistically significant difference among the three classes on the posttest results.

Table 1

Pretest and Posttest ANOVA Comparison Individual, Cooperative, and Control Classes

Class		Pretest	Posttest
Individual	M	41.94	78.61*
	SD	12.96	14.02
Cooperative	M	40.87	70.65
	SD	10.84	14.40
Control	M	43.50	60.25*
	SD	16.47	15.52

Note. Pretest: F .203, p < .203

Posttest: F 7.52, p < .01*

Because the sample sizes were unequal, Scheffe's Test for Multiple Comparisons was used. This analysis showed a statistically significant difference between the posttest performance of Class One versus Class Three (F = 14.844*). In other words, the class that received Directed Summary Instruction and worked independently produced better summaries than the control class did. There was no statistically significant difference between the performance of Class One versus Class Two. This indicates that when the classes received Directed Summary Instruction, whether the product was produced independently or cooperatively, the result was not significantly different. In addition there was no statistically significant difference in the results for Class Two versus Class Three. In other words the class that produced summaries cooperatively, using Directed Summary Instruction, did not produce final products that were significantly better than did the control class.

Table 2

Scheffe's Test Comparing Posttest Results

Class	vs	Class	F
Individual		Cooperative	2.973
Individual		Control	14.844*
Cooperative		Control	5.380

Note. p = .05*

The Kruskal Wallis One Way Anova (nonparametric) analysis indicated that there was a statistically significant difference among the posttest performances of Class One, Two, and Three ($H = 11.618$, $p = <.01$). This indicates that Directed Summary Instruction was more successful in enabling students to produce summaries than was workbook-type instruction. However, among the students who received Directed Summary Instruction, those who worked independently and produced an individual product, were somewhat more successful in producing summaries than students who worked cooperatively.

The Wilconxin Signed Rank Test (nonparametric) was used to compare the pretest and posttest scores for each class. This analysis showed a statistically significant comparison between the pre and post test scores for all three classes (See Table 3). This indicates that all three classes wrote better summaries after instruction than they did before instruction. This was true for Directed Summary Instruction as well as for workbook-type instruction. However, it must be mentioned that familiarity with the procedure, as well as the fact that the testing instrument was used for the second time as a posttest, would account for some improvement.

Table 3

Wilcoxin Signed Rank Comparisons for Pre and Post Tests

Class	Computed Value	Table Values .05
Individual	T = 0* N = 18	T = 47
Cooperative	T = 1* N = 23	T = 73
Control	T = 15* N = 20	T = 52

Note. p = .05*

The Randomized Control-Group Pretest-Posttest Design (parametric, dependent t) was used to compare the pretest and posttest scores for Classes One, Two, and Three (See Table 4). This design procedure requires that: 1. Subjects be selected from a population by random methods. 2. The subjects be assigned to the groups for treatment or nontreatment by random methods. 3. That the mean pretest score for both experimental and control groups be found. 4. Except for the experimental treatment, all other variables remain the same. 5. That the mean posttest score for both experimental and control groups be found. Design 2 was extended to this study so that the first experimental group could be compared to the second experimental group, and both group one and group two could be compared to the control group. The result of this analysis was that statistically significant differences were found among all three classes in pre-post test comparisons by class. These results further confirm the fact that all three classes improved in their ability to summarize.

Table 4

Randomized Control-Group Pre and Post Test Comparison

Class	t value	df
Individual	-12.121*	17
Cooperative	-7.965*	22
Control	-5.154*	19

Note. p = .05*

II. Qualitative Results

Applying the Rating Scale to the individual pretests for all three classes indicated that none of the 78 students involved was a proficient summarizer as this study began. (For a discussion of how these pretests were evaluated and the Rating Scale used, see pages 72 and 73.) The lowest score recorded was a 15% and the highest was an 80%, and only four students scored a passing grade of 65% or above. When the Rating Scale was applied to the posttest scores, however, a very different picture was revealed. (The Rating Scale used to evaluate these posttests appears on page 73.) There were two 100% scores and only 18 scores below 65%, the lowest score being a 35%.

Breaking down the results by class shows even more interesting data. Class One which received Directed Summary Instruction and worked individually, showed the largest improvement in posttest scores. Of the eighteen individuals who took both the pretest and posttest, only two scored better than 65% on the pretest; but on the posttest only two scored below 65%. One individual showed 160% improvement over his pretest score. Every individual in this class improved his/her score a minimum of 21%, and ten showed over 100% improvement on the posttest. This class showed, without exception, that learning had occurred.

Class Two which received Directed Summary Instruction but worked cooperatively, also showed considerable improvement on their posttest scores. Of the 23 individuals evaluated in this class, not one received a 65% grade or above on the pretest.

Seven individuals did not receive a score above 65% on the posttest, but one individual received a 100%. The rate of improvement in this class varied widely. One individual did not improve at all, but eight improved over 100% and three improved over 200% on their posttest score. It would appear that cooperative learning was very successful for some students, but not successful for others.

Class Three which was the control group in this study received workbook-type instruction and worked individually. This class showed the smallest rate of improvement. However, it also contained the individual who showed the largest total improvement of all. This individual had the lowest pretest score of 15%, and received 65% on the posttest, showing over 300% improvement. There were no 100% scores recorded on the posttest among the 20 members who were tested; the highest score was 90%. Five individuals showed no improvement at all, and the rate of improvement, in most cases, was lower than in the other two classes. This would seem to indicate that workbook instruction can teach summarizing to some individuals, but it is not the most effective method.

Further analyzing the results of this study showed qualitative factors not measurable except by individually reading the test papers. The pretest papers from all three classes showed frequent expression of opinion as a part of the summary. Opinion was eliminated from the posttest summaries of all but one individual who was enrolled in Class Three. In the pretest the article was frequently referred to as a "story"; the word "story"

was eliminated from the posttests.

Class One showed improvement for every individual who took the pre and posttest. General observations on the kinds of improvement noted are: 1. Much more detail appeared in the final summary. 2. Fewer opinions were expressed. 3. The summary covered the entire article more completely. 4. No one referred to the article as a "story" on the posttest.

Class Two also showed considerable improvement in the ability to produce summaries. These papers contained much more specific detail in the posttest and tended to be significantly longer. Not every student improved in this class.

Class Three results showed improvement in 15 cases out of 20. The summaries tended to cover the article more completely and contained more detail.

One characteristic that was noted in the posttest results, that was not desirable, was the tendency to use wording directly from the article in the summary. Copying phrases from the article was frequent; however, no one simply copied verbatim. The copied elements were phrases that came from various parts of the article ranging from the beginning to the end. Further work in paraphrasing, or translating article language into the students' own language, seems advisable.

Overall the results of the study were gratifiying. They confirmed that Directed Summary Instruction was a very successful way to teach summary writing to eighth grade students. The fact that all of the students involved in the study, whether enrolled in the experimental classes or the control class, improved in

their ability to write summaries was also hopeful. Obviously, this is a skill that is needed at the eighth grade level, and any improvement is desirable.

Hypothesis number one was confirmed. Students who received Directed Summary Instruction did construct summaries that showed statistically significant differences from those students who received workbook instruction. Hypothesis number 2 was not confirmed statistically, but more of the students who produced individual products showed improvement than did the students who worked cooperatively. Hypothesis number 3 was not confirmed statistically, but the students enrolled in the experimental classes did show more improvement in their ability to write summaries than did those students in the control class.

CHAPTER FIVE

Conclusions and Recommendations

The results of this study demonstrated that eighth grade students did learn to write better summaries by all three of the employed methods. Specifically, the class that received Directed Summary Instruction and produced an individual product out performed the class that received Directed Summary Instruction and produced a cooperative product. Both classes receiving Directed Summary Instruction out performed the control class which received traditional workbook instruction.

The purpose for developing this unit was to improve and enhance the reading, writing, and thinking skills demonstrated by students in an average eighth grade classroom. Both research and practical experience in the classroom indicated that these skills needed strengthening. The results of the study indicate that these skills were improved for nearly every student.

Summary instruction was beneficial to those students in several ways. First, it improved summary writing for immediate use. These skills could then be transferred easily into other subject areas for both present and future use. For example, the writing of an effective summary required careful and comprehensive reading; thus, reading skills were improved. Selection and organization of main ideas from the material read required thorough and logical thought. Finally, the actual summary formation required precise and accurate composition skills. All these skills have significant value to

any successful student, especially one preparing to enter high school.

One of the surprising results of this study was the fact that the class that worked as individuals was more successful than the class that worked cooperatively. Initially, it was believed that the additional advantage of peer tutoring and cooperative learning would enhance the learning process; however, this was not the case.

Several factors may have contributed to this unexpected outcome. Since the skill of summarizing was new to most of the students, it is conceivable no student "experts" evolved to lead the group because all students were learning a new skill. While many students demonstrated the skill, most were not competent enough to "teach" others. Another factor was that the objectives in achieving a successful sumary were not clear-cut and definitive. It was easy for incompetence to go unrecognized by the individual as well as by the group. Some members of the group let others do the work and were not totally aware that this was happening; thus, the workers were learning, but the non-workers were not. A third factor may have been that the class was not experienced enough with the cooperative learning approach to be successful. In the group producing a cooperative summary, the imput from each of the members of the groups was not equal, hence some definitely learned more than others. Those who learned were not very successful in passing on that learning to the weaker members. Before replicating this study it may be advantageous to increase the preparatory learning experiences

given to the group producing a cooperative summary product.

Another result observed in the posttest summaries was the increased use of language taken directly from the article by the students writing the summaries. In the pretests this characteristic was much less obvious. Where opinion completely disappeared in the posttest summary, it was replaced, in some cases, by verbatim copying of phrases and words from the article. It appeared that the students recognized the significance of these phrases and words but were unable to reword the information successfully. It appears that more work with paraphrasing would be advantageous. Learning to put article language into student language without losing important meaning is a goal for future work in this area.

A third suggestion for improving Directed Summary Instruction is to present it in smaller segments with time lapses in between. Expanding the paraphrase portion of the instruction is a logical extension of this plan. Extending the length of time using and practicing this skill would constitute the first phase of instruction. Spending five days solely on the paraphrase activity may solidify this skill more successfully. Following such a concentrated effort, switching to other activities would be desirable. Eighth graders have short attention spans and might be more successful with several short study periods spaced over several months. This would enable them to recall past learning and expand upon it. In this way the students better see how past learning experience can be called upon and utilized in varying and subsequent situations. A second

phase of instuction could include summarizing short pieces, building from sentences to paragraphs. Paraphrasing would be incorporated into this summary work. After another break in the activity, a third phase could include application of the summary technique to longer articles. Once again the paraphrase skill must be utilized and the short-piece summary skill expanded. A final phase of Directed Summary Instruction could be application to relevant subject-area materials. Applying the skill of summary writing to subject-area texts is the logical place to practice. Additionally, the new skill could be used for information gathering by the students as they prepared reports both written and oral.

One of the needs that precipitated this study was to prepare students to successfully conduct library research and write reports. Initially students appeared very inadequate in their ability to gather information from reference sources and then incorporate this information into a satisfactory report that was not plagarized or extensively copied. It is hoped that Directed Summary Instruction will enable the students to become more successful report writers. It would be very desirable to include this application phase into a future unit on summary writing. First, it would show whether or not Directed Summary Instruction was effective in this manner, and second it would give additional practice in using the skill.

Therefore, even though the use of Directed Summary Instruction was very successful, there are several areas in which additional work can be done. A class must be skilled and

experienced in the use of cooperative learning before it will be able to use that method to accomplish a complex task like summary writing. The paraphrasing component of Directed Summary Instruction needs to be expanded. Breaking the instruction into three or four parts, each providing three to five periods of instruction, probably would improve both retention and application of that learning. Finally, the application phase of summary writing needs to be expanded. The students need to see the utility of this new skill in their current assigments. By motivating them to use summary writing skills for the reading, writing, and learning required in other classes, they could better see the value of these skills, and see for themselves that they are more successful students.

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Anatomy of a Fad

It had to start somewhere. Every third teenager on the street is wearing them--perfectly good blue jeans ripped to shreds. Celebrities, too: Madonna, New Kids on the Block, George Michael. But it had to start somewhere. Who was the kid with vision enough to look down at that first rip and say: "Hmmm. This looks pretty cool, actually."

Who knows? The currents of teen culture are deep and fast, and nobody has an easy time tracking them. But one trend can provide a window into that culture, and into the complicated matrix of commerce and art, mass taste and peer pressure that governs it.

Ripped-jeans-as-teen-fashion has twin roots in Europe and America. It seems to have started as a street fashion, perhaps in Paris, where it was spotted by the French designers Marithe and Francois Girbaud. "They had their fingers on the pulse," says Girbaud creative director Joni Fiore. They also had little franc signs dancing the cancan in their eyes, and introduced "destroyed jeans" to the European market in 1985--plain jeans, more or less, with strategically placed horizontal rips. In America, meanwhile, 80's teenagers were discovering the 60's, a decade so dead and gone as to actually seem glamorous. The idea seemed to be that tattered jeans were somehow redolent with realness, or even a kind of sociopolitical cachet. With one difference, of course. "Nowadays the rips are more of a fashion statement and not necessarily a rebelliousness," says Debbie Gasparini, marketing specialist for Levi Strauss & Co. So in the fashion centers of New York and Los Angeles, sometime around 1987, hipster kids began taking razors to their expensive blue jeans. It was around this time the trend really took off among U. S. manufacturers and merchandisers. "We started ripping garments that we already had made," explains Albert Shehebar, a Jou Jou vice president. "We quickly ran out of the inventory." Macy's says it picked up Jou Jou's jeans around this time.

Nobody knows at what point the American and European trends joined. But if one had to pick a moment it would be early 1988, with the release of George Michael's "Faith" video, in which the British rocker wears jeans with rips in the knee. "MTV has had a great influence," says Patty Mitrolpoulous, formerly fashion director of Seventeen magazine. "With a record cover, there's a single picture. With MTV, an entire image gets across."

Even at this relatively late date, the ripped look wasn't perceived as a sure thing. Merchandisers were still a bit leery. "It was a risk," recalls Macy's fashion director, Terry Melville. "But we knew it was a street fashion and that kids were wearing them." But when the teen magazine Sassy did a story on ripped jeans with patches in August '89, editor Jane Pratt says the trend reached "fully saturated mainstream."

The most important determinant of a trend, however, is neither merchandisers nor the media. It's the vast, ineffable plasma of inta-teen peer pressure. At some point between the time the media first transmits the image and the time the merchandisers begin to sell it, peer pressure is critical. Ashley Camron, Teen magazine editor Roxanne Camron's 13-year-old daughter, is an eighth grader at Colina Intermediate School in Thousand Oaks, California. Ashley picked up on ripped jeans about three years ago, cutting holes in some denim shorts after seeing the look on models and actors. But she didn't have the nerve to wear them to school until her friends started wearing them, too: "If you see it on your friends, then you can wear it in public." Now, she says, everyone's wearing them.

Established in one place, trends then travel along a teen-to-teen grapevine. Rich Luker, an adolescent psychologist and a communications professor at Temple University in Philadelphia, recently ran a focus group for 16- to 18-year-old girls. In response to the question, "How do teens pick up on new fads?" Most agreed with the answers "From TV" and "From cool kids." But all agreed on the response, "When traveling,"

supporting the idea that new looks spread the fastest when teens travel outside their own group. One Philadelphia girl spotted a pair of knee-length shorts at a soccer tournament in Maryland, and bought a pair when she got home; all her friends followed. "If a cool kid goes somewhere outside his own domain, he can change fashion and create a fad," Luker says.

Adherence to a trend is a way of defining yourself in relation to your peers, in other words. If it also happens to annoy Mom or Dad--well, that's a good day's work. Nicoletta Pappas of Cape Elizbeth, Maine, watches in despair as all four of her children wear clothes with holes. "They should wear ripped jeans to clean the yard," she says. "School is no place for them. I don't see the purpose. It's just a trend, and teenagers follow." Exactly.

Anatomy of a Fad

Summary

It is hard to know how a teen-age fad begins or takes hold. The ripped jeans fad, however, seems to have been a combination of clever merchandizing, media exposure, and peer pressure. In terms of merchandizing, the fad began both in France and the U. S. It was a street fashion in France that French designers picked up on by placing horizontal rips strategically. Meanwhile in the U. S. the fashion of the 60's was being reborn in tattered jeans. George Michael's video "Faith" showed the rocker with rips in his jeans at the knee, and teen magazine Sassy did an article on ripped jeans. This spread the idea very quickly around the world. From here it was picked up by local teens. Traveling from one place to another, teens passed the fad along. When the "cool" kids started to wear ripped jeans, the fad was established. When parents objected, it was more firmly established.

Criteria for evaluation: Anatomy of a Fad

1. Main idea of article: What do fads tell us about teen culture. 10 points

   Specific topic: ripped jeans 10 points

2. Main points: clever merchandizing 5 points

   media exposure 5 points

   peer pressure 10 points

3. Detail: Names and places, Europe, U.S. Jou-Jou, Strauss, Girbaud 10 points

   Media, celebrities, George Michael, Sassy magazine, MTV 10 points

   Peer pressure, "cool" teens wear traveling teens bring it home, defining self in relation to peers and away from disapproving parents 15 points

4. Written form: Paragraph unity 5 points
   Contains topic sentence, support, and conclusion.

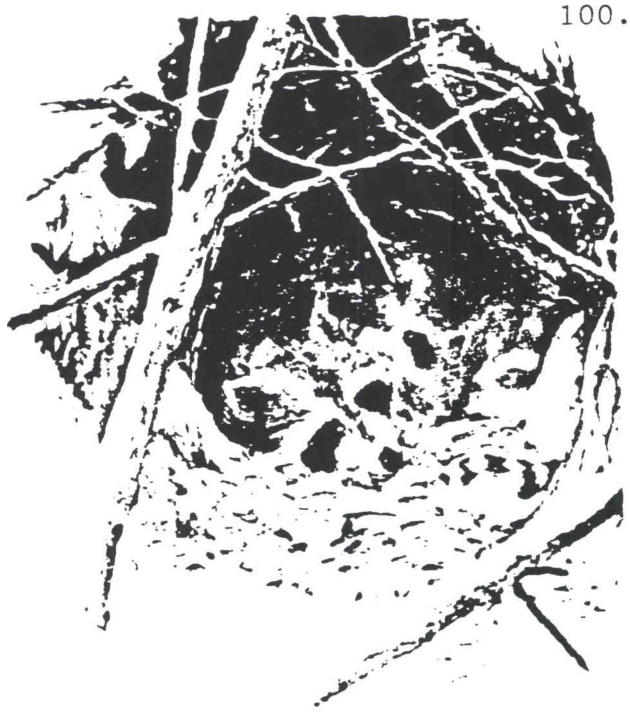
   Sentence structure 5 points
   Using complete sentences

   Organization is logical and apparent 5 points

   Clarity makes meaning easy to comprehend. 5 points

   No gross mechanical errors that interfere with reading 5 points

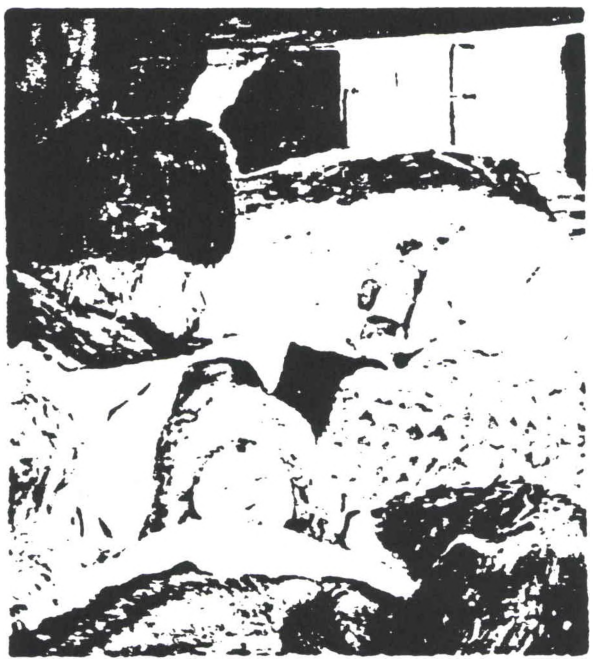
Hibernation: Possibilities for Space Travel



Travel to the moon and the dispatching of unmanned vehicles to other planets have drawn people's thoughts far out into space. One problem to be faced is the very long time space travelers have to spend in small quarters on the way. This prospect, with complications such as providing food for a long journey, led some to think about hibernation. How much space travel could be simplified if only the travelers could sleep the time away, as bears, ground squirrels, hedgehogs and some other animals sleep through the winter!

Folk tales of olden times in New England claimed that elderly members of a family were sometimes put into a kind of hibernation. Legend has it that they were put into a deep sleep, then wrapped warmly and tucked away, perhaps in a woodshed, for the long winter months. With the approach of spring, they were brought back into the house and allowed to warm up and wake up.

In poor villages of northern Russia, where in pre-Revolutionary times food used to be very scarce during the long winters, whole families practiced semihibernation, according to authoritative reports. They laid in a good stock of firewood for the stoves in their huts. Most of the family slept on a platform on top of the stove. There they huddled through the months of cold. Now and then one member would rise to poke another log into the stove. Perhaps once a day each member of the family would rouse from sleep to munch a little dry bread. But for the most part they dozed or slept the winter away.



This halfway state would not suffice for space travel, though. What is needed is a true state of hibernation in which breathing, heartbeat and all bodily functions slow almost to the stopping point. Just how this process could be brought on and controlled has puzzled scientists.

What puts animals to sleep when cold weather arrives? And what inner alarm alerts them when the weather turns warm?

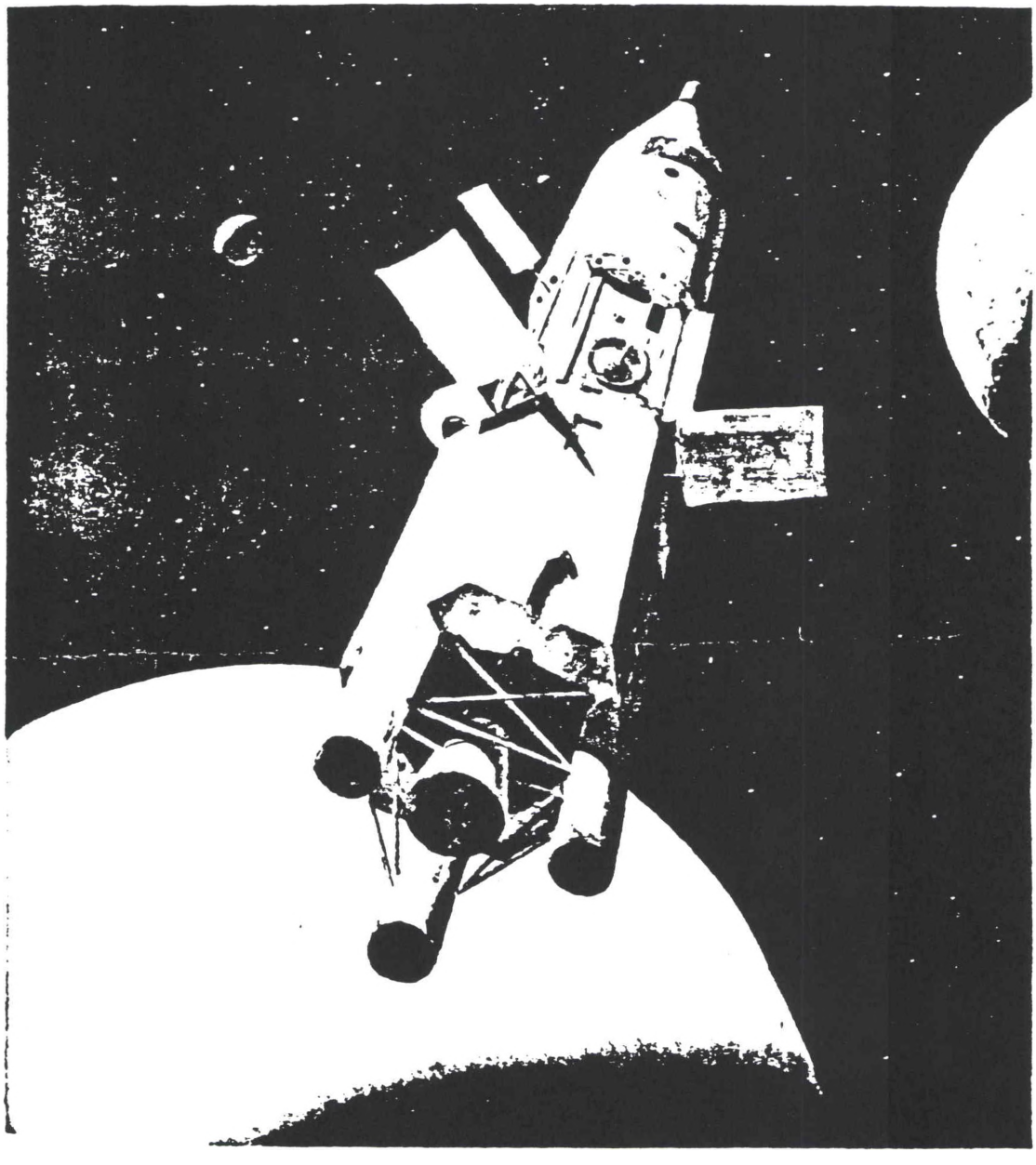
One requirement for comfortable hibernation would seem to be a good layer of fat. Animals that have not been able to find a sufficient stock of food in the fall often remain awake, prowling for scarce food through snowy woods or wandering southward in their search. But just having an adequate blanket of fat is not enough to put an animal into a months-long sleep.

Recently scientists took some blood from a hibernating ground squirrel. They made a serum using this blood and injected the serum into a wide-awake squirrel. Promptly the animal fell into a deep slumber, with breathing and heart action slowed as if for a winter's sleep.

This is just a first clue toward the solution of the mystery of hibernation. No one knows what stimulates the production of this chemical that regulates the functioning of the body organs. Nor is it known what time clock readjusts the rate of living in the spring.

Trying out the "hibernation serum" on human beings is a long way off. But once the mystery is solved, astronauts may be given an injection that will permit them to sleep through a long, dull flight to another planet. Upon arrival there, a chemical alarm will awaken them to as yet unheard-of exploration.

Then, with good luck, they may be able to reboard their space craft, reinject themselves and doze off again for the long flight home, thanks to the examples of the hedgehog, bear and ground squirrel.



Hibernation: Possibilities for Space Travel

Summary

The ability to hibernate would simplify long space trips for the travelers. There is some evidence that this is possible. Legends tell of old people who lived in New England many years ago who survived a kind of hibernation. Poor families in Russia semi-hibernated when food was very scarce. But in space all bodily functions must slow down even more. How to control this process is what puzzles the scientists. Animals who successfully hibernate must have a layer of fat. However, something more is necessary. A serum has been created from the blood of a hibernating squirrel that caused a wide-awake squirrel to fall asleep. Scientists hope to build on this discovery to develop a "hibernation serum" for space travelers of the future to use.

WHAT DOES IT MEAN TO PARAPHRASE?

After years of prodigious research, scientists have come to the conclusion that left-handedness may be harmful to your health. According to research statistics, southpaws are prone to accidents and, on average, die before their right-handed counterparts. Furthermore, among the mentally retarded, autistic, schizophrenic, dyslexic and diabetic, a significant number are left-handed. But not to fret, an unusually high percentage of those with I.Q. scores over 140 are left-handers. So if it's quiet mediocrity you want, lean to the right.

It may be dangerous to be left-handed say some scientists. They make this statement after years of careful study. Scientists have studied a great many people and have found that left-handed people have more accidents and are more likely to die younger than similar right-handed people. Among certain groups of people there are more left-handers than would be expected. These groups include the mentally retarded, others with severe learning problems, some mental illnesses, and people with diabeties. On the other hand, extremely intelligent people also seem to be left-handed more often. If you prefer to be ordinary and stay in the middle, you should be right-handed.

BIGFOOT

Indians of the northwestern part of North America told tales of huge, shaggy humanlike creatures living in the deep forests of the mountain country. These creatures were known to the Indians as Sasquatch or Seeahtik. It was said they could make themselves invisible and had other strange powers.

In 1924, some miners who had been working in a canyon in Washington State claimed they shot and wounded a big, gorillalike creature and later were attacked by a number of similar creatures. A man who camped in western Canada that same year claimed he was held prisoner for a time by a group of four hairy humanlike things that were from seven to eight feet tall.

Over a period of many years, numerous other people claimed to have seen creatures such as these. Also, many huge, humanlike footprints have been found, as much as sixteen inches long and seven inches wide. Because of these footprints, the unknown creature became known as Bigfoot.

Bigfoot is said to walk upright on two legs, like a human, but in a slow, shuffling way. Its shoulders are wide and powerful and it has hardly any neck. Its face is apelike, and there is long hair on its head, forming bangs on its forehead. Bigfoot's body is covered with hair that is usually reddish, but may also be black, tan, or white. The creature apparently eats only plant food and does not seem to be dangerous to humans unless they try to hurt it.

No Bigfoot has ever been captured, and no skeletons of anything like a Bigfoot have ever been found. Because of this,

most scientists feel that Bigfoot does not really exist and is only a legend. However, a few scientists think there may well be such creatures and that they are a kind of ape.

BIGFOOT

Indians who lived in the northwestern part of our continent used to tell stories. Some of these stories told about very large, hairy creatures who looked a little like a man. The creatures lived way back in the mountains among the trees. The Indians called these creatures Sasquatch. According to the Indian stories, the creatures could become invisible and had other unusual powers.

In 1924,(who, where, claimed what?) _____

_____.

(What did it look like?)_____

_____.

(What happened then?) _____

_____.

(Another claim was?)_____

_____

_____

_____.

For many years, (who has claimed what?)_____

_____.

(What has been found?)_____

(Size?)_____. (What was the creature named and why?)_____

_____.

Bigfoot walks (how?)_____

_____.

(body shape?)_____

.4 (face?)_____(hair on head?) _____

(color of hair on body?)_____

_____. (food?)_____

_____ (dangerous when?)_____

_____.

(What real evidence is there? What two things do scientists think about Bigfoot?)_____

_____

_____ #5

_____

_____

_____.

Draw your own version of Bigfoot.

SNAKE BABIES ARE DESERTED BY MOTHER

If you happen to come upon a litter of baby snakes just hatching from their eggs, in a sheltered place in the lee of a big stone or an old stump, you might instinctively glance around expecting to see the mother snake somewhere nearby, watching out for her younsters' welfare. You would be unlikely to find her. Snakes don't "mother" their babies. Very often, the kinds of snakes that lay eggs do not even bother to remain with the eggs to protect them until they are ready to hatch; and the eggs themselves need less protection than the eggs of birds. They are tough, resilient, rubbery things that would bounce, rather than break, if you dropped them. The mother snake is liable to glide away from them forever as soon as they are laid, leaving them to be hatched by time and the sun. Even those snakes which bring forth their young alive hardly stay with their babies for longer than it takes to set them down into the world "on their own." Within seonds after its life begins, a little snake is ready to use the instrinctive technique of coiling and striking; no less important--and this is something to remember--baby snakes of poisonous species are eqippped from the start with fangs and venom, and the instinct to use them effectively.

Snake Babies - a paraphrase

If you should find baby snakes just hatching, it would be in a place that is hidden from view. Maybe it would be behind a large stone or in a tree stump. If you look around for the mother, you would not find her. Snakes don't take care of their babies. Snakes that lay eggs don't even wait around to protect their eggs. They do not need the protection that birds' eggs do because they are very hard. They would not break if you dropped them, but would probably bounce instead. As soon as she lays her eggs the mother leaves. The sun and passing of time is all that the eggs need. Even snakes that have their young alive don't wait around to guard them. As soon as the young are born, they are on their own. At birth a snake is able to coil and strike. Even more important to people is the fact that poisonous snakes are equipped at birth with fangs and venom. And they know how to use them.

The frequency of contractions of the heart is the pulse rate. It varies fairly widely in human beings. The average in women is between 75 and 80 beats per minute. It is sightly slower, between 72 and 76 beats per minute, in men. There are some people, however, whose normal pulse at rest may be as slow as 50 beats per minute. Others may have a normal rate ranging up to 100 beats per minute.

At birth the average pulse rate is approximately 130 beats per minute. It begins slowing as the baby grows older. By one year of age the rate is about 110, and by age three it is down to 100. A child of eight will have a pulse rate of 90 beats per minute. At 12 it will be 80. Teenagers generally have pulse rates equal to adults.

Through vigorous exercise, athletes train their hearts to beat slower and more efficiently. It seems a contradiction, but the more active an athlete is, the slower his or her heart will beat when the person is resting. The reason for this is that physical exercise has caused the heart to grow larger. Since it then holds more blood, it can send a larger amount throughout the body with each beat. Therefore, fewer beats are required to supply the oxygen needs of the body.

Objective: Write a one-sentence summary of this article.

Steps to success:

1. Find the topic

   Count (find one important word mentioned 5 times in the article.)

   Circle this word.

   Write the word down.

2. Paraphrase

   pulse rate

   frequency

   varies

   ranging

   vigorous

   efficiently

   contradiction

3. Determine important ideas

   Count (the number of paragraphs)

   List the important ideas (one for each paragraph)

4. Stating the main idea.

   Underline the main idea with an insertion for the word "it" from the previous sentence.

5. Write a summary of this article.

1. More than 30 years after Elvis Presley first rattled the foundations of Western Civilization, the People's Republic of China is starting to rock. Once branded decadent and counter-revolutionary by Chairman Mao Zedong, rock music is now just one more Western influence in a nation embracing everything from jeans to Coca-Cola. But a People's Motley Crue appears far off: Chinese rock is long on syrupy strings and disco beats and short on Western rock's most crucial ingredient -- defiance.

_____

_____

_____

2. Nostalgia is in -- and expensive for the devotees of baseball's golden age. One-time greats like Ted Williams, Joe DiMaggio, Ernie Banks and Willie Mays are charging from $12 to $30 for their autographs at baseball-card shows. They sign rapidly while their mostly young fans are rushed impersonally through long lines. It wasn't that long ago that players signed their names for free, especially for kids. Many of today's players also set a price before they'll sign anything.

_____

_____

_____

3. Next time you visit the pyramids of Egypt, do the 4,500-year-old edifices a favor: don't park your car near them, don't climb up their sides, and breathe on them as little as possible. Egyptologists are warning the public that the factors of modern life -- air pollution, sewage water and vibration from car traffic -- are destroying the Sphinx and other historic treasures. Even breathing in a tomb is risky, raising the humidity and encouraging the growth of destructive fungi.

4. The U. S. Army has enlisted its newest recruit -- a soldier who is not afraid to embark on the most dangerous of missions. Manny, the new trooper, has one major advantage over his fellow G. I.'s -- he's a robot. But he walks, talks, breathes and even sweats like his human counterparts. At the Army's Dugway Proving Ground in Utah, he will test the effects that certain battlefield encounters may have on a soldier. In October, "Robogrunt" will walk into clouds of nerve gas to test how body movements may affect the leakage of gas through protective clothing. Based mainly on Disney technology and built by Battelle's Pacific Northwest Labortories, Manny cost $2.35 million.

5. After seven years of popularity, Family Ties, reputedly Ronald Reagan's favorite television show, has taped its 176th and final episode. Actors Michael J. Fox (who has movie projects lined up until 1992), Meredith Baxter Birney, Tina Yothers (who was 9 years old when the show started), Justine Bateman, Michael Gross and the rest of the crew bid one another tearful farewells. The comedy series about a couple of grown-up flower children and their very proper kids has tried to deal with serious subjects, such as teen suicide, Alzheimer's disease, divorce and the healing powers of family.

Answers to one-sentence summary exercise

1. Although the People's Republic of China permits rock music, it is very different from the Western version.

2. These days baseball's old-time greats get $12 to $30 for an autograph; the recipient has probably had to wait in a long line to receive the autograph.

3. Ancient Egyptian relics are being destroyed by the factors of modern life.

4. A U.S. Army robot named Manny is testing protective clothing designed to protect soldiers from the effect of nerve gas.

5. "Family Ties" quits while they are ahead.

POP

Popular music is often called pop music for short, but the term "pop" can mean a style of music which is different from other kinds of music that are very popular, such as rock and soul music. Pop is music performed by singing stars and groups that is usually light and entertaining. The songs may be new or old. Pop has no particular style of its own and may make use of styles of rock, soul, folk or country music presented in such a way as to have as wide an appeal as possible. For this reason, some pop is known as MOR, meaning music that is "middle of the road" in style.

Singers and performers come and go rapidly in the world of pop, but some hit it off with the public and become stars, remaining at the top year after year. Presentation is very important in pop, and stars give spectacular television shows and live concerts; some appear in films as well.

ROCK MUSIC

In the mid-1950's, a revolution occurred in popular music. This was rock and roll, which exploded on to the music scene with such force that its sounds are still with us today. For about twenty years, dance music played by the swing bands and sentimental songs, often from musicals, had been popular with the record-buying and radio-listening public in North America and Europe. Rhythm and blues was still favored mainly by black people in America, and modern jazz had become too involved to have great appeal.

Then suddenly there appeared a mixture of rhythm and blues and country music, the popular music that developed from white folk music. It had less of the raw power of rhythm and blues, but the country influence gave the music an energetic rocking and rolling beat. With its direct, simple lyrics and tunes, rock and roll became an immediate hit with the public. It created a superstar in Elvis Presley and launched many performers, notably Buddy Holly in United States -- whose popularity has long survived his death in 1959 -- and Cliff Richard in Britain, still going strong in the 1980's.

Follow these steps to write a good summary.

1. Read and understand the entire article to be summarized.
2. Re-word or paraphrase any important but difficult words that might affect meaning.
3. State the main idea of the article in sentence form.
4. Choose only important ideas to include in your summary.
5. Eliminate trivial detail and duplication.
6. Group together details and ideas whenever you can.
7. Rewrite, in good paragraph form, your summary.

THE TRIUMPH OF TECHNOLOGY

Popular music has always been dependent on technology. The development of radio and records carried popular music into homes and ensured its future as styles came and went. The use of microphones has enabled singers to develop individual styles of singing that have great appeal, and sound systems have allowed performers to put their music across to huge audiences at concerts.

Today, technology is at the heart of popular music and it shows in several important ways. Modern recording techniques, for example, enable bands and singers to produce spectacular albums that are technically much more advanced than their live appearances. Technology has also created disco music, which developed as people began to dance to records played on high-quality sound systems in discotheques. Disco is renowned for its strong, insistent beat, which makes the music good for dancing. Allied to this style is funk, a bouncy rhythmic way of playing that features driving bass lines.

Another application of technology is a style often called electropop because it features electronic instruments. This style as been developing since the late 1970's, when synthesizers became widespread, and now many groups produce sounds that are mostly or even totally generated by electronic and computer-driven instruments. Electropop is one of the few developments in popular music that began outside North America and Britain. In 1976, it produced one of the most original

sounds in popular music with the album Oxygene by the French musician Jean-Michel Jarre, and the first electronic bands to gain fame were the German groups Tangerine Dream and Kraftwerk. This kind of music has been mainly limited to records and film soundtracks, but progress in computer technology will make electronic music easier to perform live and should bring it to a wider audience.

A further and very important technological development to affect popular music is video, which is more than just a promotion device. The choice and production of visual images in a pop video can be just as creative as writing and performing the music. The music must now be seen as well as heard, a revolutionary development that is very likely to affect popular music greatly far into the future.

The Triumph of Technology - a summary

Technology has been extremely important to the field of popular music. First it was radio and records that brought this music into homes. Then microphones and sound systems enabled singers to perform their music to large audiences. Today technology is still very important. Albums are produced with technical advances that make them superior to live appearances. Discotheques are dependent on technology for producing high-quality sound systems appropriate for dancing. Even more modern is electropop which uses electronic instruments like synthesizers, and this area is still developing. Videos which add a visual image are still another advancement that will continue to keep popular music very popular.

COOPERATIVE LEARNING CLASS

1. All groups have been assigned; there is no discussion of group membership. These assignments are for the duration of this unit of work unless I decide otherwise.

2. Each member of each group has an individual number in addition to a group number.

3. Begin each group activity by working in pairs; #1 and #2, #3 and #4.

4. One member of each group will be chosen as Scribe and is responsible for completing the written portion of each lesson. The other three members of the team help the Scribe decide what to write.

5. Before turning in the assignment, each team member signs the lesson. With your name you are saying that this is the best work that you can do.

6. Each member of each team has these responsibilities: trying, asking for help, helping teammates, being courteous.

7. Each team assigns these roles before beginning to work. One is the Scribe; one is the Checker, who makes sure there is agreement before the answer is written; one is the Gofer, who gets any supplies required, sharpens pencils, or contacts the teacher if necessary; and one is the Encourager, who offers praise and encouragement to ensure that all team members contribute.

8. Each team has the responsibility of solving its own problems, staying on task, not interferring with any other team's work. Do not talk or contact any other team during work time.

9. Remember the sound level and talk in low voices.

Additional lesson plans and workbook materials used in this study can be obtained by contacting the author.